National Library of Canada
Acquisitions and Bibliographic Services Branch
395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale du Canada
Direction des acquisitions et des services bibliographiques
395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file *Votre référence*

Our file *Notre référence*

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

Canada

UNIVERSITY OF ALBERTA

A HERMENEUTIC PHENOMENOLOGICAL INVESTIGATION OF STUDENTS' EXPERIENCE OF TEST TAKING

BY

© E. NOLA AITKEN

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of DOCTOR OF PHILOSOPHY

DEPARTMENT OF ELEMENTARY EDUCATION

Edmonton, Alberta
FALL 1994

National Library
of Canada

Acquisitions and
Bibliographic Services Branch

395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale
du Canada

Direction des acquisitions et
des services bibliographiques

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file - Votre référence

Our file - Notre référence

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-315-95146-X

Canada

Nola Aitken

GRADE 3
ACHIEVEMENT TEST

Mathematics

June 1990

Alberta
EDUCATION

DO NOT MARK IN THIS AREA

18583

DO NOT MAKE

ANY MARKS

ON THIS PAGE

Copyright 1990, the Crown in Right of Alberta, as represented by the Minister of Education, Alberta Education, Student Evaluation and Records Branch, 11160 Jasper Avenue, Edmonton, Alberta, T5K OL2. All rights reserved. Additional copies may be obtained from the Learning Resources Distributing Centre.

Questions in this test that contain excerpted material may NOT be reproduced without the written permission of the original publisher (see CREDITS page, where applicable). Permission is hereby given to teachers to reproduce parts of this test that do NOT contain excerpted material for educational purposes and on a nonprofit basis ONLY AFTER THE ADMINISTRATION OF THIS TEST.

Figure 1

Field Test Question 1989

15. Which picture has 0.2 of the cupcakes with cherries on top?

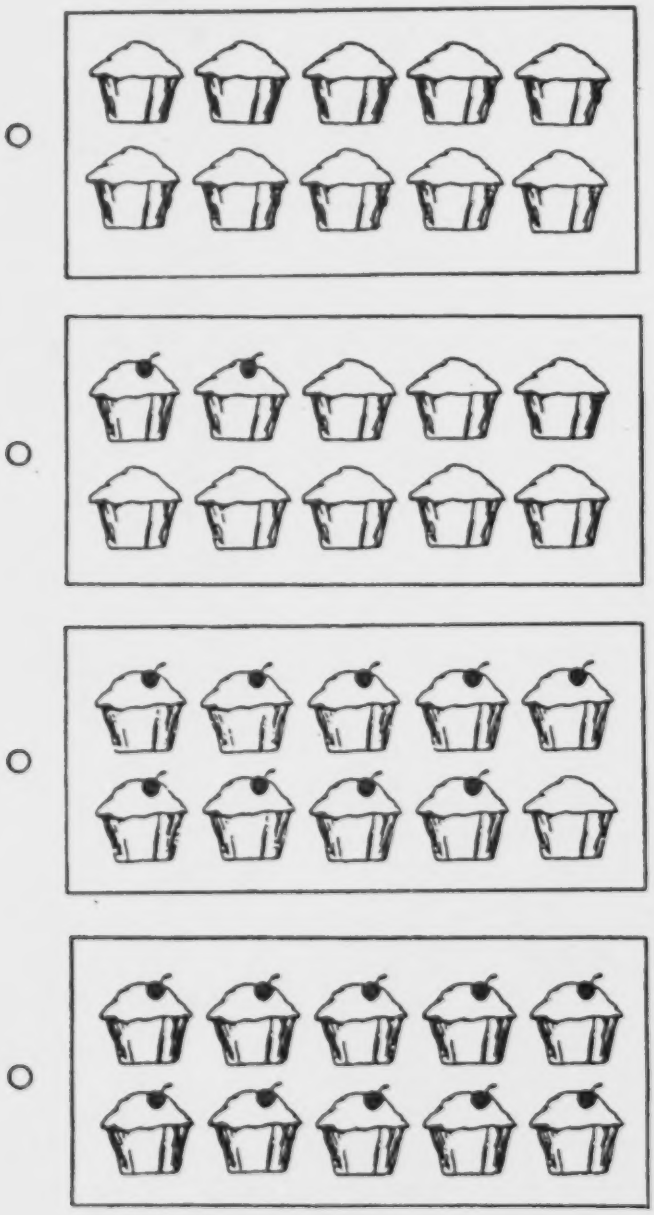
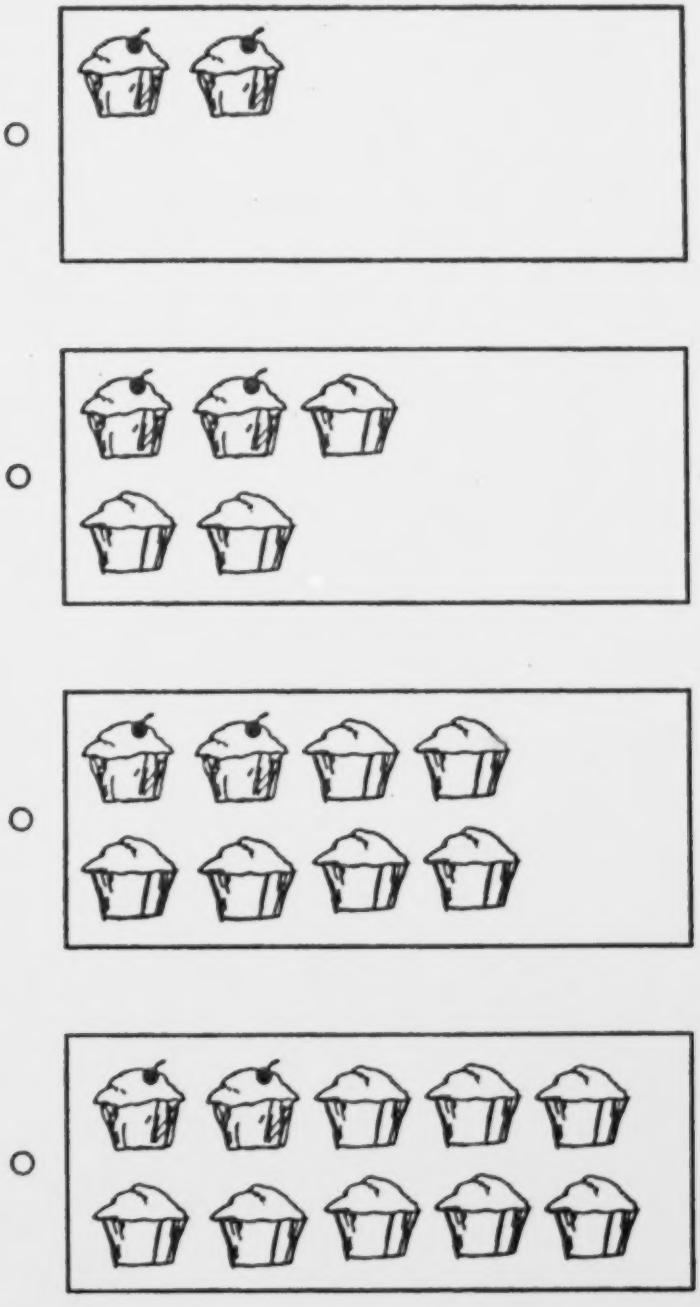


Figure 2

Achievement Test Question 1990

9. Which picture has 0.2 of the cupcakes with cherries on top?



200 PARK AVENUE
NEW YORK, NEW YORK 10166
212 692-3700

UNITED
MEDIA

March 25, 1994

Nola Aitken
3402 Lakewood Road South
Lethbridge, AB
T1K 3C6 Canada

Dear Nola:

Per your request, please consider this one-time, non-exclusive NORTHAMERICAN reprint rights to Peanuts 1-14-93 which you may include in your upcoming publication, The Meaning and Experience of Taking a Test.

The usage fee is $ 25.00.
Please consider this your invoice (your invoice number is 2999) and remit payment within 90 days to:

United Media
200 Park Avenue
New York, NY 10166
Attn: Jeanne M. DeSimone

Payment must be accompanied by this invoice or your request will not be processed. In addition, please print the following copyright line directly above or alongside feature:

PEANUTS reprinted by permission of UFS, Inc.

In the event that you decide not to reprint the material, please notify the Reprint Rights Department.

If you have already paid, please keep this invoice for your records.

Please don't hesitate to let me know if you have any other questions or need anything else.

Sincerely,

Jeanne M. DeSimone
Reprint Rights Manager

Figure 8

Cartoon: The Physical Effects of Tests

PEANUTS reprinted by permission of UFS, Inc.

I HAVE A THEORY, MARCIE..
I THINK YOUR WHOLE BODY BECOMES SUSPICIOUS WHEN YOU'RE NOT READY FOR A TEST..
AND WHEN YOU LOOK AT THE QUESTIONS...
YOUR HAIR IS THE FIRST TO KNOW!

UNIVERSAL PRESS SYNDICATE

4900 Main Street® Kansas City, Missouri 64112® 816/932-6600

April 8, 1994

Nola Aitken
3402 Lakewood Road South
Lethbridge, Alberta
Canada T1K 3C6

Dear Ms. Aitken,

Thank you for your letter requesting permission to reprint:

(4) CALVIN AND HOBBES, (2) FOR BETTER OR FOR WORSE, and (3) HERMAN cartoons in your dissertation.

We extend to you our gratis permission to reprint this text feature on a **one-time-only basis.**

We do require that you use this copyright line with each cartoon/text:

CALVIN AND HOBBES copyright Watterson. Reprinted with permission of UNIVERSAL PRESS SYNDICATE. All rights reserved.

FOR BETTER OR FOR WORSE copyright Lynn Johnston Prod., Inc. Reprinted with permission of UNIVERSAL PRESS SYNDICATE. All rights reserved.

HERMAN copyright Jim Unger. Reprinted with permission of UNIVERSAL PRESS SYNDICATE. All rights reserved.

There can be no additions, deletions or changes of any kind to the cartoon or text. All cartoons must be reprinted in their entirety. Portions of cartoons or characters cannot be used.

Please mail us two copies of the publication when it is completed.

We appreciate your interest in Universal Press Syndicate and our features.

Sincerely,
Mary C. Suggett
Permissions Director

MCS:kd
Note: FUNKY WINKERBEAR is handled by North America Syn. at 216 E. 45th St., New York, NY 10017.

ups

Figure 9

Cartoon: The Dependence Upon a Second Chance in Testing

CALVIN
OH, I WISH I'D DONE MY MATH HOMEWORK! NOW THE TEACHER'S GOING TO COLLECT IT AND I'M AS GOOD AS DEAD!
WHY DID I DO THIS TO MYSELF? I EVEN HAD AN EXTRA DAY TO GET IT DONE! INSTEAD, I GOOFED OFF AND NOW I'M GOING TO PAY FOR IT!
BOY, I'VE LEARNED MY LESSON! THIS DAY HAS BEEN NOTHING BUT DREAD, AND I COULD'VE AVOIDED IT ALL! HERE SHE COMES! GOODBYE, WORLD!
RRINNGGGG
I'LL COLLECT YOUR HOMEWORK TOMORROW, CLASS.
SWING, QUICK, AM I SITTING IN A BEAM OF LIGHT?
LOOKS MORE LIKE A PUDDLE OF SWEAT. WHY?

Cartoon: Uninteresting Instruction

Figure
12

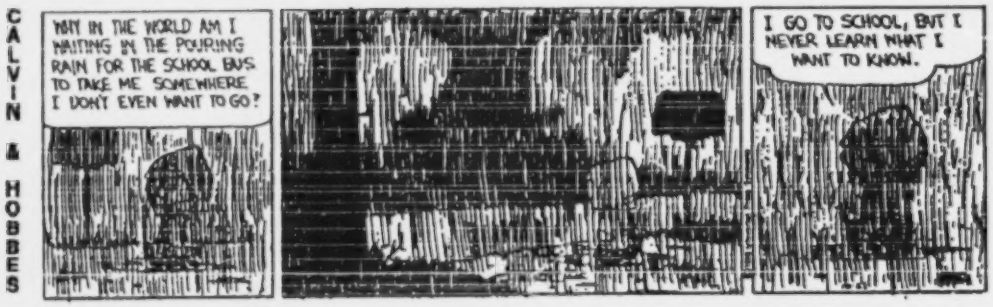

CALVIN & HOBBES
WHY IN THE WORLD AM I WAITING IN THE POURING RAIN FOR THE SCHOOL BUS TO TAKE ME SOMEWHERE I DON'T EVEN WANT TO GO?
I GO TO SCHOOL, BUT I NEVER LEARN WHAT I WANT TO KNOW.

Figure 14

Cartoon: Relevance of Instruction to Life

CALVIN
I WISH THIS SLED HAD A SPEEDOMETER SO WE COULD KNOW HOW FAST WE'RE GOING.
I SUPPOSE WE COULD MEASURE THE HILL, TIME OUR DESCENT, CALCULATE OUR RATE IN FEET PER MINUTE, AND CONVERT THAT INTO MILES PER HOUR.
THAT SOUNDS LIKE MATH.
UM, YES.
SUDDENLY I STOPPED CARING.

Figure 16

Cartoon: The Importance of Celebrating Success

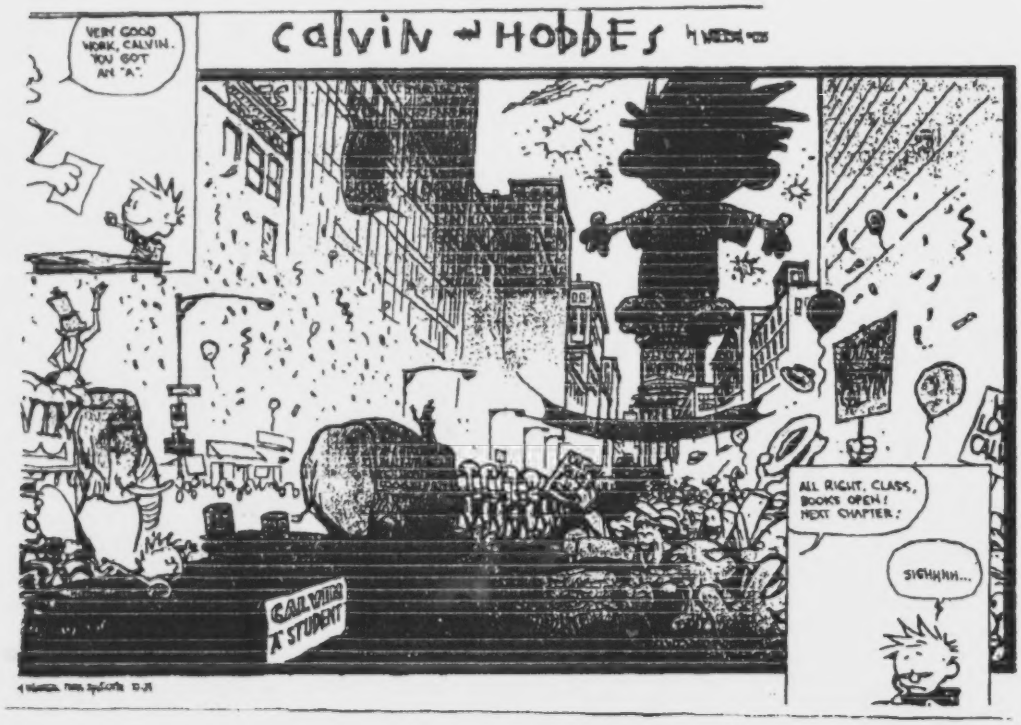


Figure 4

Cartoon: For Better or Worse--Before the Test

OK EVERYONE, I GAVE YOU GOOD NOTES LAST WEEK, YOU'VE HAD TIME TO GO OVER THEM. - THIS MORNING, I HAVE A SHORT TEST...
A TEST? OH NO! AGGHH NO FAIR! YOU NEVER WARNED US!!
WE NEED ANOTHER DAY! CAN WE HAVE THIS CLASS TO STUDY? I WASN'T HERE LAST WEEK!! GROANNNN
WHY DO I FEEL AS THOUGH I'M TEACHING DRAMA INSTEAD OF SCIENCE?!!

FOR BETTER OR WORSE copyright Lynn Johnston Prod., Inc. Reprinted with permission of UNIVERSAL PRESS SYNDICATE. All rights reserved.

In reference to students' views after a test, this cartoon (Figure 5) illustrates Melinda's lament about remembering everything <u>after</u> she has taken the test. In the last of the four drawings, the picture of the girl (Elizabeth) expresses the frustration and hopelessness of it all.

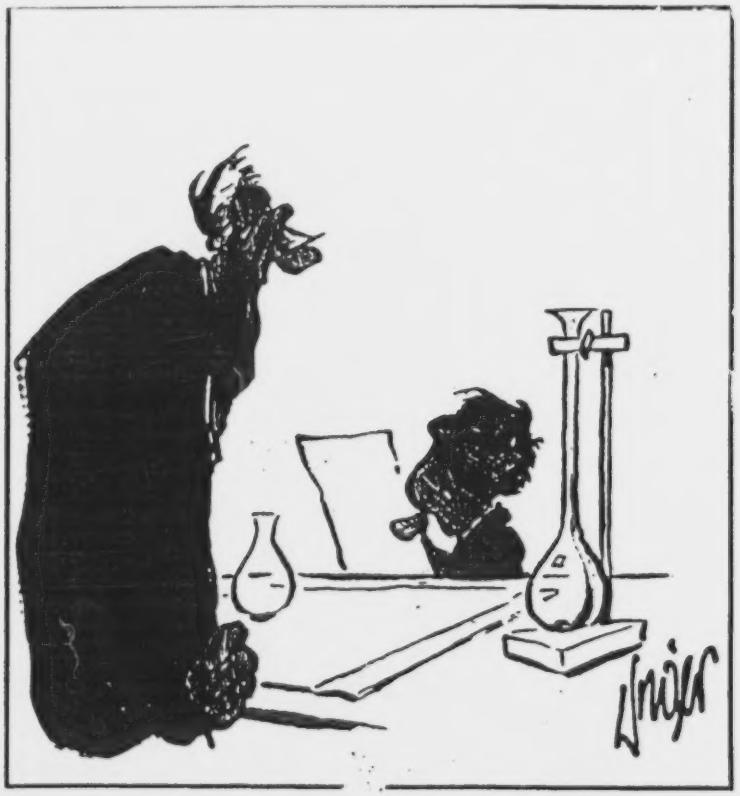
Figure 5

Cartoon: For Better or Worse--After the Test

BETTER OR WORSE
THE ANSWER TO NUMBER 17 IS MADAME CURIE!
THE INVENTOR OF THE MICROSCOPE WAS ANTONIE VAN LEEUWENHOEK!
CELSIUS AND FAHRENHEIT REACH THE SAME POINT ON THE THERMOMETER AT MINUS 40 DEGREES.
...IT'S AMAZING HOW MUCH YOU CAN REMEMBER AFTER YOU'VE HANDED YOUR TEST PAPER IN!

Figure 15

Cartoon: Education is a Shared Responsibility

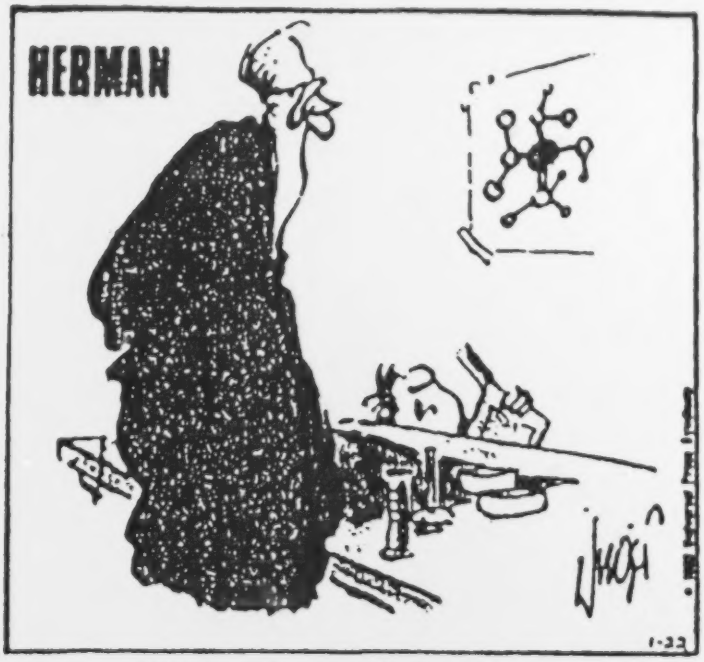


"I think you'll find my test results are a pretty good indication of your abilities as a teacher."

HERMAN copyright Ji

Figure 10

Cartoon: Bribing the Teacher for a Good Test Mark

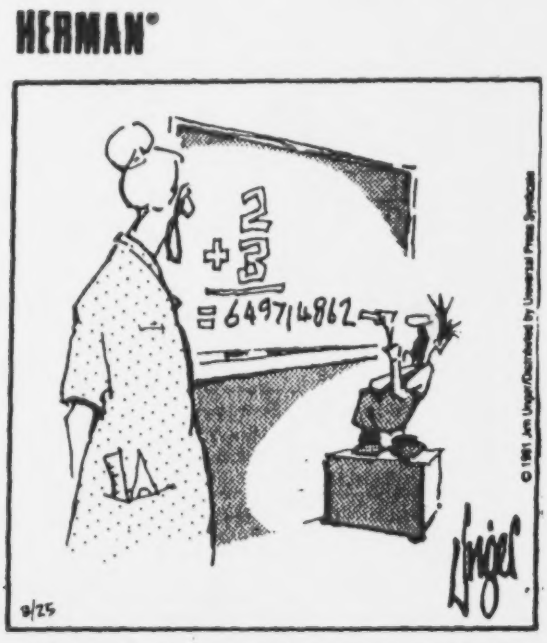


"If I get a good mark, you could be looking at a very nice apple tomorrow morning."

HERMAN copyright Jim Unger. Reprinted with permission of UNIVERSAL PRESS SYNDICATE. All rights reserved.

Figure 13

Cartoon: Teaching for Understanding



"Where do you want the decimal point?"

Nola Aitken
3402 Lakewood Road, S.
Lethbridge, AB
T1K 3C6
June 22, 1994

Mr. F. Button
3398 Chili Avenue
Rochester, NY
14624

Dear Mr. Button,

I would like permission to use the cartoon above in my dissertation, "The Meaning and Experience of Taking a Test From the Points of View of Students." The dissertation will not be published but approximately six copies will be made: three copies will be made for the Faculty of Graduate Studies and Research, one for the HT Coutts Library, Faculty of Education, one for my doctoral supervisor, Dr. Sylvia Chard, and a personal copy for myself. The Faculty of Graduate Studies and Research will send a copy to the National Library of Canada where it will be microfilmed and published in "Dissertation Abstracts International" and "Masters Abstracts International" by University Microfilms Inc., Ann Arbor, Michigan.
I am enclosing the $25.00 fee that you requested.

Please sign the following below to indicate approval of permission.
Yours sincerely,

Nola Aitken has my approval to use the cartoon above in her dissertation.

Ford Button

Ford Button

Figure 7

Cartoon: The Power of Grades

"It's an interesting theory, Fred, but the power to give grades is not terrorism."

The Alberta Teachers' Association

11010 142 Street, Edmonton, Alberta T5N 2R1

1994 03 23

Ms Nola Aitken
3402 Lakewood Road South
Lethbridge AB
T1K 3C6

Dear Ms Aitken

This is written confirmation, as requested, that permission is granted to use the cartoon published in the March/April 1992 issue of *The ATA Magazine* in your dissertation. Please ensure reference is made to *The ATA Magazine*.

Sincerely

Raymond D Gariépy
Associate Editor
The ATA Magazine

RDG/rah

the ata magazine

453-2411 in Edmonton, 263-4774 from Calgary, 1-800-232-7208 from elsewhere in Alberta Fax 455-6481

Figure 5

Art Illustrating the Issue Fairness of Tests

Reprinted with permission of THE ATA MAGAZINE.

It appears that the man who is weighing the student is aware of the power that he has over the student. It is interesting that "power" was a significant finding in my interpretation of students' stories of taking a test. This is elaborated on further in Chapter VI. As Gadamer (1989) states, we have to "discover the question which it answers, if we are to understand it as an answer." The question in this case could be, "What is it like to be tested?" The artist

one thing, the question of how many skills should be counted will never be answered to everyone's satisfaction; for another, a discrete skills emphasis often leads to a response of "error hunting." Error hunting is akin to criticizing the inappropriateness of my friend's footwear after she tells me about the exhilarating mountain hike she's just experienced. Such a response would rightly make her feel that I'd completely missed the meaning of her hike. At some point, a discussion about mountain hiking might cover hiking equipment, including footwear, but this surely ought not to be the primary concern. Similarly, the chief focus of language arts evaluation ought to be whether the reading or writing achieves the purpose and understanding that the reader or writer set out to discover or create. Within such a meaning-centred context there is a place for skills testing, but it should certainly not be the primary focus. Thus, although testing may have a place in language arts assessment, it is only a small part of evaluation.

Confusing Testing and Teaching

A second common confusion in evaluation is the failure or inability to clearly distinguish between assessment and instruction. The teacher guides to a basal reader series typically include a section entitled "Comprehension Instruction" for every reading selection. Usually this section consists of questions asking students what they have read. Often the questions are classified according to some cognitive-level taxonomy. Thus, there will be some literal level questions, some at the inferential level and possibly some at the evaluative level. But, asking children questions about a story is comprehension assessment, not comprehension instruction. Comprehension instruction would show children the differences among literal, inferential and evaluative questions and how to go about finding answers to such questions. Dolores Durkin[1] has shown that most of what teachers say they are doing when they claim to be teaching comprehension is really assessing it. Then, when these

King Features Syndicate • North America Syndicate

Permissions

The Hearst Corporation

235 East 45th Street

New York, N.Y. 10017

Telephone (212) 455-4000 • (800) 526-KING • FAX (212) 682-9763

Federal ID #s: K.F.S. 13-0433120, N.A.S. 13-3385764

April 7, 1994
Permission#:0002137

Invoice #..:0001691

Nola Aiken
Nola Aiken
3402 Lakewood Rd. S.
Lethbridge, Alberta
T1K 3C6
CANADA

Reference: SALLY FORTH

Use: DISSERTATION

Dear Ms. Aiken,

Thank you for your request for permission to reprint the 11/15/91 release of SALLY FORTH.

Please be sure the copyright notice appears on each reprint.

You must also insert the following credit line with each reprint:

"Reprinted with special permission of King Features Syndicate"

In view of the nature of this request, we are waiving our usual permissions fee. The enclosed invoice covers our standard handling charge only.

Thank You.

Sincerely,

Elizabeth Nolan

Elizabeth Nolan
Permissions

Figure 11

Cartoon: Tests of Memorization

SALLY FORTH
HILARY'S SPELLING TEST IS TODAY, TED. CAN YOU GIVE HER ONE LAST RUN-THROUGH?
SURE.
READY? "EROSION."
THAT'S NOT THE FIRST WORD, DAD. HOW CAN I SPELL THEM IF YOU JUMBLE THEM UP?
YOU ONLY KNOW THEM IN ORDER?
I DON'T KNOW THEM, I MEMORIZED THEM. NOBODY SAID ANYTHING ABOUT HAVING TO KNOW THEM.

UNIVERSITY OF ALBERTA

RELEASE FORM

NAME OF AUTHOR: **E. Nola Aitken**

TITLE OF THESIS: **A Hermeneutic Phenomenological Investigation Of Students' Experience Of Test Taking**

DEGREE: **Doctor of Philosophy**

YEAR THIS DEGREE GRANTED: **1994**

Permission is hereby granted to the University of Alberta Library to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly or scientific research purposes only.

The author reserves all other publication and other rights in association with the copyright in the thesis, and except as hereinbefore provided neither the thesis nor any substantial portion thereof may be printed or otherwise reproduced in any material form whatever without the author's prior written permission.

enaitken

3402 Lakewood Rd., S.
Lethbridge, AB
T1K 3C6

August 24, 1994

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled **A HERMENEUTIC PHENOMENOLOGICAL INVESTIGATION OF STUDENTS' EXPERIENCE OF TEST TAKING** submitted by **E. NOLA AITKEN** in partial fulfillment of the requirements for the degree of **DOCTOR OF PHILOSOPHY**.

Dr. S. Chard

Dr. D. Sawada

Dr. D. Smith

Dr. M. van Manen

Dr. J. Blakey

Dr. R. Jevné

Dr. R. Wilson

August 18 1994

I dedicate this dissertation to my children:

Denise, Michael, and Christopher.

ABSTRACT

How often have we, as educators who administer several tests to students throughout the year, ever wondered what it is like for the students to take those tests? At this point, little research has focused on testing from the student's point of view. This investigation attempted to uncover the meaning of what it is like for students to take tests so that educators may better serve students by developing, administering, and using the results of tests more appropriately. The research methodology used was hermeneutic-phenomenological inquiry. The data were taken from interviews, students' narrative writing, observations, fiction, film, cartoons, art, and song lyrics as sources of lived experience. The participants, ranging in age from eight years to adult, were chosen from urban and rural locations in Alberta. This study shows some of the emergent themes that arose out of the students' testing experiences. The emergent themes were grouped under the existentials of relationality, corporeality, spatiality, and temporality. Within relationality some sub-themes include the effect tests have on the students' concept of self, and students' relationships with other students, students and teachers, and students and parents. The theme of corporeality includes the effect that tests have on the body and the different ways the body reacts to the test-taking experience. Spatiality sub-themes include the strangeness of place, and how the familiar becomes unfamiliar in a test situation. Finally, the sub-themes of temporality include the different lived experiences of before, during, and after the test. Other themes that arose from the text were notions of power in various forms, cheating, secrecy, motivation, and tactful teaching. These themes were then interpreted and viewed pedagogically to better understand the meaning and experience of taking a test so that a thoughtful pedagogical action could be undertaken. Students' prime concern was fair testing practice which embodied the pedagogical relationship and teacher expertise. Thoughtful pedagogical action that was considered from the study was authentic instruction linking authentic assessment in rich context, constructivism, and measurement driven instruction.

ACKNOWLEDGMENTS

I would like to acknowledge the many people who gave the encouragement and support that I needed to complete this work. I would like to express my sincere appreciation to my committee members for their contribution and guidance: Dr. Jan Blakey, Dr. Ronna Jevné, Dr. Daiyo Sawada, Dr. David Smith, Dr. Max van Manen, and Dr. Bob Wilson (external examiner).

I would like to thank and acknowledge my friends at the University of Lethbridge Education Faculty and Support Staff for their suggestions, expertise, and support.

Sincere thanks go to those who gave up their time to read and validate the data and interpretation from their point of view, specifically: Sharla Staszczak and Miles Trieber, students external to the investigation from the University of Lethbridge; Nadine Chandler, parent; Gillian Vas, teacher of the County of Warner #5; David Baker, principal of the Westlock Elementary School, Westlock School Division #37; Liz Gourlay, school trustee of the Rangeland School Division #9; Dennis Belyk, Assistant Director of the Student Evaluation Branch, Alberta Education, and Art Aitken, superintendent of schools, Rangeland School Division #9.

I wish to express special thanks and appreciation to my supervisor, Dr. Sylvia Chard who planted the seed for me to do my PhD. and who guided and encouraged me throughout my dissertation and graduate work.

Finally, special appreciation goes to my family whose encouragement, patience, and high expectations saw me through to the completion of my studies.

TABLE OF CONTENTS

CHAPTER I 1

Introduction to the Pedagogical Question 1
The Purpose of the Investigation 2
The Significance of the Investigation 3
The Limitations of the Investigation 3

CHAPTER II 5

The Pedagogical Question and Its Relation to the Literature
A Brief History of Testing 5
Testing Today in the United States and Alberta 5
Recent Escalating Costs of Testing 6
Misuse of Test Results 6
The Background of the Achievement Testing Program and the Diploma Examinations 7
The Necessity of External Examinations 7
The Testing Debate
Redesigned Tests 8
Traditional Paper-and-Pencil Tests 8
A Compromise? 9
Students' Responses to Paper-and-Pencil Tests 10
The Essay Test 10
The Objective Test 11
Addressing the Pedagogical Question 15
Explicating Assumptions 15
Theories and Information on Test-Taking Procedures 19
Addressing the Pedagogical Sub-Questions 20

CHAPTER III 21

Research Methodology--A Journey 21
Hermeneutic Phenomenological Human Science 21
What Hermeneutic Phenomenology Is Not 22
What Hermeneutic Phenomenology Is 23
Pursuing the Question Through Research Activities 25
Research Activity 1
Orientation to the Phenomenon 25
Research Activity 2
Data Gathering 26
Research Activity 3
Thematic Analysis 26
Research Activity 4
Hermeneutic Phenomenological Writing 26

Research Activity 5
Maintaining a Strong and Oriented Relation to the Phenomenon 26
Research Activity 6
Check the Balance of the Research Context by Considering Parts and Whole 27
Data Gathering Tools 27
The Journal As a Data Gathering and Research Tool 27
Data Gathering in Relation to the Investigation 28
Selection of Participants in the Research Project 28
Gaining Entry 29
Working With the Participants 29
Interviews
Narrative Writing 30
Thematic Analysis in Relation to the Investigation 31
Tabular Presentation of the Thematic Analysis 31
Written Synthesis of the Thematic Analysis 31
Effects and Ethics of Human Science Research 32

The Pilot Study 32
Purposes of the Pilot Study 33
Learnings and Practice from the Pilot Study 33
Limiting the Age of Participants 33
Motivating Students 33
Data Management and Organization 34
Practice at Writing, Reflecting, and Rewriting the Text 34

Reliability, Validity, and Generalizability 34
Reliability 35
Validity 35
Generalizability 36

CHAPTER IV 37

Other Sources of Data 37
Experiential Descriptions in Literature 37
Art As a Source of Lived Experience 39
Experiential Descriptions in Film 42
Tracing Etymological Sources 43
Searching Idiomatic Phrases 44
Observations of Students Taking Tests 45
Phenomenological Literature 46

CHAPTER V 47

Thematic Analysis 47

I. Relationality 48
Tests Can Affect a Student's Concept of Self 48
Students' Stories 49
Student Unable to Demonstrate Knowledge and Understanding 49
Students Fear Test Result Will Label "Smart" or "Dumb" 50
The Test Seen As A Mystery 51
Not Knowing How Well Student Achieved on the Test 52
An Unexpected Grade 52

Tests Can Affect Student Behavior and Relationships With Peers 54
Students' Stories 54
Competition With Peers 54
Hiding Feelings About the Test From Others 57

Tests Can Affect the Student's Relationship With the Teacher 58
Students' Stories 59
Test Schedule 59
Bell Curve or Not Trusting the Teacher 60
Mis-reading the Instructions 60
Test Content a Surprise 61
Guessing What the Examiner Wants to Hear 62
Inflexible Examiners 63
Unfamiliar Examiner 63
Cheating 64
Distractions During the Test 68
Inappropriate Scheduling of Tests 68
Test Administration 69
Returning of Grades 70
Weighting of Tests and Tests of Memorization 73

Tests Can Affect the Student's Relationship With Parents 76
Students' Stories 76
Motivated by Parent to Study 76
Sorry to Disappoint Parents 77
"Disgusted" Parents 77
Parental Advice 77
Fear of Parents' Reaction and of Having to Repeat the Course 78

II. Corporeality 79
Tests Can Have a Physical Effect On Students Which Is Not Like Everyday Bodily Functioning 80
Students' Stories 80
Before the Test
Experiencing Heaviness and Exhaustion 80
Experiencing Heightened Perception of Body Reactions and Senses 81
During the Test
Experiencing Malfunctioning of Body and Mind 82
After the Test 83
Experiencing Lingering Memory of Sounds and Smells 84

III. Spatiality 85
Tests Can Affect Students' Perception and Experience of Space 85
Students' Stories 86
The Familiar Become the Unfamiliar 86
Strangeness of Place 86

IV. Temporality 89
Tests Can Affect the Students' Perception and Experience of Time 90
Students' Stories 90
The Different Experiences of Time Before, During and After the Test 90
The Students' Experience of Time Before a Test 90
Students' Experiences of Time During the Test 92
Students' Experiences of Time After the Test Has Taken Place 95
Experiencing Lack of Time to Complete Test 98
Strategies to "Beat the Clock" 100
The Dilemma of Too Much Time 102

Chapter V Summary 102

CHAPTER VI 106

Reflecting On Students' Stories About Taking a Test 106
Themes Arising From the Text 106

I. Relationality 107
A. Students Valued Fair Testing Practice 108
B. Motivation 108
C. Students Valued Tactful Teachers 108

A. Students Valued Fair Testing Practice....108
Power and Powerlessness and the Pedagogical Relationship....111
Physical Effects of Power and Powerlessness....113
Forms of Power....114
a) Time is Power
b) The Power of Grades....115
i) Abuse of grades and test results
ii) Cheating
c) The Power of Secrecy....119
d) Testing As a Form of Oppression

B. Motivation....122
1. Avoidance Tactic
2. Fear
3. Rewards....123
a) Extrinsic
b) Intrinsic

C. Students Valued Tactful Teachers....123

Summary of Relationality....124

II. Teacher Expertise....125
A. Students Value "Tests Worth Taking"....126
B. Students Do Not Value Tests of Memorization and Trivia....126

Chapter VI Summary....126

CHAPTER VII

The Tact of Testing and Fair Testing Practice....128

Thoughtful Assessment....128
Students Valued Fair Testing Practice....129

Students' Principles of Fair Testing Practice....130
1. Variety of Assessment Tasks....130
Variety of Assessment Task Wish....130
2. Authentic Assessment in Context and Aligned With Instruction....130
Authentic Assessment In Context and Aligned With Instruction Wish....131
3. Clear Instructions and Clarification of Questions....131
Clear Instructions and Clarification of Questions Wish....131
4. Meaningful Tests and Appropriate Weighting....131

Meaningful Tests and Appropriate Weighting Wish 132
5. Marking/Scoring Guide Criteria Provided 132
Marking/Scoring Guide Criteria Provided Wish 132
6. Adequate Time 133
Adequate Time Wish 134
7. Optimum Conditions and Tactfulness: Corporeality and Spatiality 134
Optimum Conditions and Tactfulness:Corporeality and Spatiality Wish 134
8. Tactful Test Scheduling 135
Tactful Test Scheduling Wish 135
9. Special Needs 135
Special Needs Wish 136
10. Purpose of the Test: Summative or Formative? 136
Purpose of the Test:Summative or Formative Wish 138
11. Appropriate Use of Grades 138
Appropriate Use of Grades Wish 139
12. Mis-use and Abuse of Test Results in External Assessment 139
Mis-use and Abuse of Test Results in External Assessment Wish 140
13. Addressing Cheating On Tests 140
Addressing Cheating On Tests Wish 141
14. Addressing Secrecy 141
Addressing Secrecy Wish 141
15. Addressing Motivation 141
Addressing Motivation Wish 144
16. Tact in Testing 144
Tact in Testing Wish 144
17. Developing Tests Worth Taking 144
Developing Tests Worth Taking Wish 145
18. Testing As a Positive Activity 145
Testing As a Positive Activity Wish 145

Chapter VII Summary and Reflection 145
My Final Wish 146

Students' Wish List (1992-1994) 147

CHAPTER VIII

Thoughtful Pedagogical Instruction and Assessment
A Celebration of Learning and Living 149

Students First! 150
Addressing Students' Points of View 150

What Meaningful Teaching Is Not....150
Teaching to the Test
Unengaging Instruction and Irrelevant Content
Motivation for Educationally Unsound Reasons....151

What Meaningful Teaching Is....153

Constructivism
What The Research Says....157
The Students' View of Constructivism in the Classroom....159
Constructivism in the Classroom: Assessment....161

Appropriateness of Authentic Tasks....161
Goal-free Assessment....162
Self-assessment....162
Scoring Guide Criteria....163
Reporting the Results....163

Authentic Instruction and Authentic Assessment....164

Conclusion....165

Linking Good Instruction to Good Assessment....165
Interrelation of Assessment and Instructional Tasks....167
Student Involvement in Peer Assessment....167
Student-Constructed Tests....167

"Time" for Teachers....169
Teachers As Reflective Practitioners....169
Purposeful Activity....169
Who Owns the Store?....169
A Parent Speaks Out....169
Teachers and Change....171
Coping With Change....171
Suggestions for Teachers....173
Less Is More....173
Uncover the Curriculum....173
Shake off the Albatross....174
Meaningful Professional Development....175

CHAPTER IX....177

Conclusion

The End of the "Hodos"--And New Beginnings....177

My Growth as a Learner--The Eighth Assumption Now Unconcealed 177
My Beliefs
Re-looking At Instruction and Testing 177
Reaffirmed Beliefs
Kitchen Math and Backyard Science 177
Beliefs Open to Question 178
Measurement Driven Instruction 178
Multiple-Choice Test Questions 182
How I Will Change My Instruction 183
Practice That I Will Continue 183
Assessment As a Positive Step 183
Significant Learning From the Research
Creating A Space for Learning and Assessment 184

REFERENCES 189

APPENDIX A Notes 201

APPENDIX B Sample of Data Recording and Organizing of Students and Topics 203

APPENDIX C Samples of Letters 206

LIST OF FIGURES

Figure 1: Field Test Question 1989 13

Figure 2: Achievement Test Question 14

Figure 3: Cartoon: For Better or Worse--Before the Test 39

Figure 4: Cartoon: For Better or Worse--After the Test 40

Figure 5: Art Illustrating the Issue of Fairness of Tests 41

Figure 6: Cartoon: The Power of Grades 72

Figure 7: The Physical Effects of Tests 80

Figure 8: Cartoon: A Second Chance in Testing Taking 111

Figure 9: Cartoon: Bribing the Teacher for a Good Test Mark 118

Figure 10: Cartoon: Tests of Memorization 122

Figure 11: Cartoon: Uninteresting Instruction 152

Figure 12: Cartoon: Teaching for Understanding 156

Figure 13: Cartoon: Relevance of Instruction to Life 159

Figure 14: Cartoon: Education is a Shared Responsibility 172

Figure 15: Cartoon: The Importance of Celebrating Success 187

NOMENCLATURE

Achievement Test:

> In most research concerned with the effectiveness of instructional methods the dependent variable is achievement. Therefore achievement tests are widely used in educational research, as well as school systems. They measure the mastery and proficiency of individuals in different areas of knowledge. (Ary et al., 1985, p. 190)

Achievement Testing Program:

> The achievement tests help Alberta Education to communicate provincial expectations and results for levels of student performance in language arts, social studies, science and mathematics. The tests enable Alberta Education to monitor the level of achievement of students throughout Alberta. The results also help local school boards, principals, and teachers identify strengths and weaknesses in their implementation of these programs. (Alberta Education, 1993a, p. 121)

Authentic Assessment:

> In an authentic assessment, the student not only completes or demonstrates the desired behavior, but also does it in a real-life context. "Real life" may be in terms of the student (for example, the classroom) or an adult expectation. The significant criterion for the authenticity of a writing assignment might be that the locus of control rests with the student; that is, the student determines the topic, the time allocated, the pacing, and the conditions under which the writing sample is generated. (Meyer, 1992, p. 40)

Broadened or alternative assessment:

> Broadened or alternative forms of assessment are "techniques and tasks that are not standardized tests, e.g., performance assessment, portfolios, etc." (Hebert, 1992, p. 58).

Canadian Achievement Test:

> The fundamental purpose of the Canadian Achievement Tests is to provide information to be used in making educational decisions leading to improved instruction in the basic skills. They are designed to measure achievement in the basics of any instructional program: reading, spelling, language, and mathematics. This edition also includes a measure of applied reading skills (reference skills) that are essential to achievement in all areas. The reference Skills score is reported separately and is not included in the Total Battery score. Canadian Test Centre (1982). Canadian Achievement Test. Toronto: McGraw-Hill Ryerson Ltd. (p. 7)

Canadian Cognitive Abilities Tests (1988):

> This test measures scholastic aptitude and abstract reasoning. It is a norm-referenced test that provides one with separate scores in verbal,

quantitative and non-verbal reasoning. It is used in grades from K-12. (Wright, E. N. in Assoc. with R. L. Thorndike and E. P. Hagan: Nelson, Canada.)

Canadian Test of Basic Skills (CTBS):

. . . is based on the Iowa Test of Basic Skills (ITBS) (Hieronymus, Lindquisyt and Hoover 1978) and has been revised three times since being introduced to the Canadian market. It consists of three separate batteries designed to measure skills in, or related to, reading, language, workstudy and mathematics. Not all skills are included in each battery. (Bachor & Crealock, 1986, p. 58)

Corrected Point Biserial (CRPB):

Biserial and point biserial correlation techniques have been developed for instances when one wants to find the relationship between a continuous interval or ratio variable and a dichotomous nominal variable. (Ary et al., 1985, p. 129)

Criterion-referenced Tests:

[Criterion-referenced tests] enable one to describe just what an individual can do, without reference to the performance of others. Performance is reported in terms of the level of mastery of some defined content/skill domain. Typically the level for mastery is indicated by the percentage of items answered correctly. Predetermined cutoff scores are used in interpreting the individual's performance. (Ary et al., 1985, p. 191)

Diploma Examination:

All Grade 12 students in Alberta are required to write at least one diploma examination, either English 30 or English 33, to receive a high school diploma. The grade 12 Diploma Examinations Program is intended to develop and maintain excellence in educational standards by certifying academic achievement. The program provides examinations in selected Grade 12 courses: English 30, English 33, Social Studies 30, Mathematics 30, Biology 30, Chemistry 30, Physics 30, and Français 30. (Alberta Education, 1993b, p. 1)

Essay Test:

"An essay-style question is a question on a test or examination which requires a written response in sentence and paragraph form" (Etobicoke Board of Education, 1987, p. 120).

High-stakes testing:

The use of readiness or achievement tests for the classification, retention, or promotion of students qualifies them as high-stakes tests: "Those whose results are seen--rightly or wrongly--by students, teachers, administrators, parents, or the general public, as being used to make important decisions that immediately and directly affect them (Madeus, 1988, p. 87)." (Meisels, 1989, p. 17)

Life-world; or lifeworld:

Husserl introduced the notion of the "life-world" (Lebenswelt) "to characterize our sense of the world as it is there for us before we say or do anything about it. . . ." (D. G. Smith, 1991, p. 190). Husserl described the lifeworld as "the 'world of immediate experience, ' the world as 'already there,' 'pregiven,' the world as experienced in the 'natural, primordial attitude,' that of 'original natural life'" (van Manen, 1990, p. 182).

Lived Experience:

This is everyday experiences in our lifeworld. Husserl described the lifeworld as the "world of immediate experience," the world as experienced in the "natural, primordial attitude" (van Manen, 1990, p. 182).

Normal Curve:

The normal curve is a symmetrical distribution of measures with the same number of cases at specified distances below the mean as above the mean. Its mean is the point below which exactly 50 percent of the cases fall and above which the other 50 percent of the cases are located. (Ary et al., 1985, p. 117)

Norm-referenced Tests:

Norm-referenced tests permit one to compare individuals' performance on the test to the performance of other individuals. An individual's performance is interpreted in terms of his or her relative position in a specified group known as the normative group. Performance is reported in terms of percentiles, standard scores, and so on (Ary et al., 1985, p. 191).

Objective Test:

These tests include the following: multiple-choice questions; true-false questions; matching questions, and short-response items. "The distinguishing characteristic of objective-style questions is that they have highly specific, pre-determined answers requiring a very brief response" (Etobicoke Board of Education, 1987, p. 156).

Performance assessment, or performance-based assessment:

"[P]erformance assessment" methods require students to create answers or products to demonstrate what they are learning. Some of these assessments are extensions of familiar paper-and-pencil tests; others involve oral presentations, hands-on experiments, or portfolios of student work. (Feuer, Fulton, & Morison, 1993, p. 530)

Portfolio Assessment:

A (student) portfolio is a purposeful collection of student work that exhibits to the student (and/or others) the student's efforts, progress or achievement in (a) given area(s). This collection must include student

participation in selection of portfolio content; the criteria for collection; the criteria for judging merit, and evidence of student self-reflection. (Arter & Spandel, 1991, p. 2)

Prefix with hyphens such as "dis-cover":

Words such as re-learning, re-living, and other deconstructions with a different prefix and hyphen, for example, "un-covering," are commonly found in hermeneutics because deconstruction is an interpretive hermeneutical activity (D. G. Smith, 1991, p. 194).

Standardized Test:

Standardized tests are published tests that have resulted from careful and skillful preparation and cover broad academic objects common to a large number of school systems. These are tests for which comparative norms have been derived, their validity and reliability established, and directions for administering and scoring prescribed. (Ary et al., 1985, p.190)

Test:

A test is a set of stimuli presented to an individual in order to elicit responses on the basis of which a numerical score can be assigned. This score, based on a representative sample of the individual's behavior, is an indicator of the extent to which the examinee possesses the characteristic being measured. (Ary, Jacobs, & Razavieh, 1985, p. 189)

CHAPTER I

Introduction to the Pedagogical Question

Should I cheat? No, I might get caught--but I didn't study very much. NO! I won't cheat.
FIVE MINUTES BEFORE THE FINAL EXAM
O.K. Here I am sitting in the far back of the room not knowing what will be on the test, if I studied what's on it, how long it is, or if the teacher thinks that I am cheating. I can't mess this up. I can't mess this up. If I mess this up I will fail and my parents will kill me. I can't believe that these two hours will count for 40% of my grade. I should have studied more. Why didn't I study more? What if he thinks I'm cheating?
DURING THE TEST
Dear Lord let me pass. Dear Lord let me pass. HOLY SHIT! The test is 30 pages long! I'm going to fail. I can't fail! Dear Lord let me pass. I can't stop sweating. I should have cheated. I know that--what is the answer? Does he think that I'm cheating? I'm not cheating, but does he think I am? I'm going to fail. I'll have to do this course again. How much time is left to do it? I have enough time. Am I going too fast? Does he think I'm cheating? I'm going to fail. I wonder what I need to get on this test to pass the course? Lord please let me pass.
AFTER THE TEST
I failed. I know I failed. I'm dead. My parents are going to kill me. Did I pass? How did I do?
DEAR LORD PLEASE HELP ME PASS!

> **People write the history on those born blind, on wolf-children, or those under hypnosis. But who will write the more general, more fluid, but also more determinant history of the "examination"--its rituals, its methods, its characters and their roles, its play of questions and answers, its systems of marking and classification? For in this slender technique are to be found a whole domain of knowledge, a whole type of power. (Foucault, 1979, pp. 184-185)**

There was little else as a student that would cause me such anxiety as when a teacher would say, "This morning I'm giving you a test." Most often, this anxiety seemed to be shared by my peers also. "Test." What a powerful word. Ironically, it was in later years that I, who was so fearful of tests, became a Test Development Specialist (TDS) for Alberta Education. It was there, at the Student Evaluation Branch, where I developed and administered many tests for several years for the Provincial Achievement Testing Program.

Perhaps it was my past experience of test taking that made me wonder what is was like for the students to take the tests which I was responsible for developing. Did these students share my former anxiety too? Previously, as a classroom teacher, I took for granted the administration of tests to students. It was something that had to be done. Numbers were needed to file away for administrative purposes, for reports to parents, for program planning information. During my teaching career I didn't really consider the child over

which these numbers and procedures held so much power and anxiety. And like myself, I don't think other teachers were aware of the effects testing had on children, either. Nevertheless, I was becoming more attuned to students in testing situations as the years progressed.

Once I was out of the classroom and in administration developing the Achievement Test in Mathematics, I noticed now other educators shared my concern about student testing. This concern was not limited to Alberta educators. Teachers throughout the world were voicing their protest about the prolific and inappropriate testing that was being carried out. These protests were recorded in a number of publications (Alberta Teachers' Association, 1993; Armstrong, 1991; Bell, 1991; Bredekamp & Shepard, 1989; Davies, Paul, Schroeder, & Scott, 1993; Education USA, 1990; Fiske, 1988; Gardner, 1991; National Assessment and Education of Young Children [NAEYC], 1988; Paris, Lawton, Turner, & Roth, 1991; "Phase out," 1990; Sherman, 1990). It seemed odd, however, that the student's voice was not heard to any great extent.

There were rare exceptions. S. G. Paris (personal communication, October 28, 1992), and Witte and Blakey (1991) surveyed grade-school students about their views, and Albas and Albas (1984) observed and interviewed university students; however, very few other researchers really listened to students' perspectives on testing. With the advent of the Student Achievement Indicators Project (SAIP), the Third International Math and Science Study (TIMSS) test, and the education minister's 1992 Vision for the Nineties statement for the purposes of teacher accountability and student academic achievement, I felt that it was due time for an inquiry into the experience of testing from the students' perspective. Hence my dissertation, "A Hermeneutic Phenomenological Investigation of Students' Experience of Test Taking."

The Purpose of the Investigation

That the past experience revived in the meaning
Is not the experience of one life only
But of many generations.

(T. S. Eliot from 'The Dry Salvages," Sharma, 1985, p. 50)

The purpose of my phenomenological inquiry, was twofold: 1) to understand the meaning and experience of taking a test, and 2) to use the results of the research to guide pedagogically-appropriate testing in the classroom context and at the provincial level. I would hasten to add that I am not suggesting that all current testing is inappropriate; my belief is that generally, testing could be better oriented to the needs of the student than it currently is. Van Manen (1986) supports this view: "No matter how well-meaning many of us are as pedagogues, our words and actions may address themselves to a situation the child is not part of" (p. 9).

The focus for data analysis was guided by one pedagogical question: What is it like to take a test? The focus on only one question is congruent with phenomenological inquiry. Because of my pedagogical orientation as a teacher,

my question arose from my quest for pedagogic thoughtfulness and competence in testing. Addressing a pedagogic question or concern in this way is supported by van Manen (1990): "Every project of phenomenological inquiry is driven by a commitment of turning to an abiding concern" (p. 31). Aksamit (1990), and Brimfield, Roderick and Yamamoto (1983) endorse this notion also. Brimfield et al. write: "[O]ne's research career is unmistakably a reflection of the person that he or she has been. Of all the possibilities, one raises only certain questions, pursues only certain approaches, and reads the results in only certain ways" (p. 15). My interest and experience in testing as a test development specialist further affirmed my choice of this question. Osborne (1990) addresses this notion of reflection on, and experience with, the subject matter of the question: "The researcher is well advised to engage in extended reflection on the determination of 'the question.' A prior understanding of the phenomenon of interest usually arises from the researcher's experience" (p. 81).

While I chose one question, I included subsets of the question to help uncover the meaning of what it is like to be tested, such as: What is the experience like before a test? What is the experience like during a test? What is the experience like after a test? As well, although I anticipated that other questions would emerge; my focus remained on the nature of the phenomenon of taking a test as meaningfully experienced.

The Significance of the Investigation

The world-wide proliferation of student testing is a pedagogical concern that evokes the question: What it is like for students to take a test? This was a significant investigation for three reasons: First little research had been done in this area using the students' points of view of testing. Second, because hermeneutic phenomenological investigation can be viewed as a way to critical action (Denton, 1979; van Manen, 1990), I believe that the new knowledge and understanding of the nature of student testing that I uncovered may have an impact on teacher preparation, practice, and government policies. And third, again because of the little research that had been done in this area, I hope that my investigation will be a springboard for formulating theoretical and philosophical perceptions of student testing for further research.

The Limitations of the Investigation

This investigation into the meaning of what it is like to be tested was limited initially to tests of the traditional paper-and-pencil test format such as the essay or objective test. I had not intended to include alternative forms of testing such as performance-based assessment in this investigation but some students chose to write about their experiences with performance tests. I quickly realized when I read their stories that tests are essentially similar, whether they are performance or paper-and-pencil, so I included some of these stories as well. ("Performance-based assessment" is one of several terms that may be unfamiliar which is defined for the reader in the nomenclature.)

The students involved in the investigation were selected from urban and rural areas, from the University of Lethbridge, and from surrounding schools in

the Lethbridge Separate School District #9, County of Warner #5, and Rangeland School Division #9.

CHAPTER II

The Pedagogical Question and Its Relation to the Literature: A Brief History of Testing

The first efforts to develop mental tests scientifically were through the work of Galton in England in the 1870s, and later by Binet in France in the 1900s (Berlak, Newmann, Archbald, Burgess, Raven, & Romberg, 1992; Eisner, 1985). However, the major advance in testing in America occurred when the Alpha and Beta tests were developed at the beginning of the First World War. These tests were used to help identify from the enlisted men, officer candidates, and those who could not read (Berlak et al.; Eisner). But formal tests have been around much longer than that. According to Linden and Linden (1968), measures of academic achievement were developed in the Western World in the year 1200 AD, when the first doctoral examination was conducted at the University of Bologna, in northern Italy. It took five hundred years before this practice reached down to the Master Degree level at Cambridge University in England.

The first popular standardized achievement test, the Thorndike Handwriting Scale, was produced in 1909 for use in schools. Because of its apparent success, this test was quickly followed by a wide variety of achievement and aptitude tests (Perrone, 1991). The first battery of elementary achievement tests, The Stanford Achievement Tests, was not developed by Lewis Terman and Truman Kelley until 1923.

Testing Today in the United States and Alberta

> **In the course of their careers in the American schools of today, most students take hundreds, if not thousands of tests. They develop skill to a highly calibrated degree in an exercise that will essentially become useless immediately after their last day in school. (Gardner, 1991, p. 216)**

Since then, testing has grown at an astronomical rate (Feuer, Fulton, & Morison, 1993) and further, FairTest (Fiske, 1988) estimates that primary and high-school children in the United States take about 100 million tests every year. It should come as no surprise then, to hear educational researchers lament that testing in North America "is running amok" (Shepard, 1989, p. 4). Does this lament also apply to Alberta? Many educators think so (Sherman, 1991). Every year students are prepared for School District Testing Programs (Alberta Teachers' Association, [ATA] 1993; D. Harley & D. Armstrong, personal communication, September 24, 1993) as well as the Provincial Achievement Testing Program (Alberta Education, 1993a). From my investigation into this question I have found that teachers are divided in their opinion as to whether the present amount of testing is appropriate in the province; some feel that the amount is quite appropriate, whereas others feel that there is too much testing entirely (ATA, 1993).

Support for testing programs in Alberta is strong in many jurisdictions. For example, the Edmonton Public School system, with a school population of

over 78 thousand students (1993/94), administers tests to 17 thousand students at the grades 3, 6, and 9 level every year (Grade 3: approximately 6000 students; Grade 6: 5700, and Grade 9: 5500). These students must write teacher-constructed external tests in language arts, social studies, science, and mathematics. In addition, they may write the Canadian Cognitive Abilities Test (CCAT) at the Grades 3, 6, and 9 level, but this is at the option of each school (D. Armstrong, personal communication, September 24, 1993). The Edmonton Catholic School District #7 with a student population of over 32 thousand (1993/94), administers the Canadian Test of Basic Skills (CTBS) to students in grades 1 to 9 annually, and the CCAT to students at grades 1, 3, 6, and 9; and district wide math test administered to grades 7 through 10 annually. As well, the Gates McGinitie and Henmon-Nelson tests are given to new students coming in from other schools or as teachers feel as necessary (D. Harley, personal communication, September 24, 1993, and July 26, 1994).

Recent Escalating Costs of Testing

The cost of testing in recent years in North America has been escalating, particularly since the publication in 1983 of A Nation At Risk (Perrone, 1991; Shepard, 1991). As Willis (1990) reports: "Schools in the U.S are drowning in a sea of standardized tests, at a cost approaching $900 million per year" (p. 3). In Alberta several million dollars are spent on assessment annually. For example, the Alberta Student Evaluation Branch's budget is about $7.4 million per year (1992/1993) for a testing population of approximately 100 000 students (B. Lehman, personal communication, September 29, 1993). The budget for assessment in the Edmonton Public School District #7 is approximately $200 000, and the assessment budget for the Edmonton Catholic School District #7, is $30 000 per year. If I include the assessment budgets for all jurisdictions throughout the province, I would estimate that annually, about $8 million is spent on testing in Alberta schools, or about $15 per student, based on a population of over 534 000 students (Statistics Canada, personal communication, October 5, 1993).

Misuse of Test Results

Pouring money into the evaluation arena, however, does not necessarily improve learning, even though test scores might go up (Apple, 1979). An investigation into America's standardized test results by Cannell (1987) where all 50 states were above the national average, demonstrated the misuse and abuse of standardized testing. Grade inflation hit Alberta schools after the Government of Alberta under recommendations of the Worth Report abolished the Grade 12 departmental examinations in 1973 (Zachariah & O'Neill, 1986). The assertion that the abolition of the Grade 12 departmental examinations was the cause of grade inflation was countered, however, by B. T. Keeler, Executive Secretary of the ATA, who cited a University of Alberta study (name of study not cited in the text) that showed these assertions were unfounded. Nevertheless, the wide-spread view has remained that students entering post-secondary institutions were not as well prepared as they used to be (Rogers, 1991; Zachariah & O'Neill).

The Background of the Achievement Testing Program and the Diploma Examinations

Within three years of the abolition of the Grade 12 departmental examinations, a "back to basics" movement began, possibly because the Worth Report was not, in retrospect, representative of Albertans (Zachariah & O'Neill, 1986, p. 109). Along with the back to basics movement, the public called for greater accountability of schools because of the perception of declining standards (Rogers, 1991). Following on the heels of this emerging movement, the government of Alberta formed the Minister's Advisory Committee on Student Achievement (MACOSA) in 1976 to advise on appropriate action to take (Zachariah & O'Neill). In 1980, Education Minister David King, on the recommendation of the Harder Report and the MACOSA report, announced a major evaluation program that was to include achievement tests, diagnostic tests, and comprehensive examinations (Zachariah & O'Neill). Today we have in Alberta a mandatory Achievement Testing Program, the Diploma Examination Program, and Diagnostic Mathematics and Reading Programs.

The results of the Achievement Testing Program which tests students on a cyclical basis in the four core subject areas at grades 3, 6, and 9, indicate that student achievement since its inception in 1982 has gone up (Alberta Education, 1993a). However, the Achievement Testing Program is not well received by some educators and students for a variety of reasons, one of which is its perceived inappropriateness for young children, and another because of its incongruency with instruction and assessment, particularly at the Grade 3 level ("Children's Voices," 1993; Craig, 1993; Fairhurst, 1993; Le Box, 1991; McGuire, 1991; Sherman, 1991). On the other hand, judging from comments from teachers at the Achievement Testing Program marking sessions (personal communication from 1988-1992), it seems that many teachers support the Achievement Testing Program, and, like the issue of the appropriate amount of testing that is done in Alberta, it is difficult at this point, to determine exactly where teachers stand.

The Necessity of External Examinations

Why do we need this external monitoring as outlined by Alberta Education? It is believed by many that the external tests are necessary for "quality control" (Rogers, 1991, p. 180) and perhaps because teachers cannot be entirely trusted in their judgment of student learning. Zachariah and O'Neill (1986) argue that external examinations are more valid than the "idiosyncratic evaluations of teachers" and that "one or two strategically placed public examinations can help promote good teaching . . . as well as providing a minimum standard" (p. 104).

In keeping with the need for monitoring, local teacher-constructed external examinations are developed by many school jurisdictions in core subject areas. Students write these in addition to the Provincial Achievement Test at the end of the school year (ATA, 1993). In addition, students write internal tests that are constructed by their teachers throughout the year. One

now may be prompted to ask: Approximately how many tests do Alberta students write annually? From what I have been able to ascertain, it would vary from jurisdiction to jurisdiction and from grade division to grade division. Superintendent A. Aitken (personal communication, October 9, 1993) estimates that in his school division, elementary students write about 12 tests and quizzes altogether in a year; junior-high students write one test every three weeks for each of their five core subjects and three electives (which translates to about 107 tests and quizzes per year); while high-school students write one test or quiz per week per 5-credit course. Most high-school students take three to four courses per semester, which would mean they would write about 120 tests and quizzes per year.

The Testing Debate: Redesigned Tests

Since the beginning of the new surge in testing in the 1980s, there has been a marked change in test design where attempts have been taken to redesign assessment tasks that "more closely resemble real learning tasks" (Shepard, 1989, p. 8). Such measures include performance-based tests and broader assessment procedures such as portfolios, journals, observations, and anecdotes, which attempt to capture what a student knows and can do.

A Performance-based Assessment component was included in the 1992 Provincial Achievement Testing Program in Mathematics, and similar ones are being developed for the English Language Arts, Science, and Social Studies Achievement Tests, as directed by the Education Minister's Vision for the Nineties, (1991). While these new tests complement the more familiar traditional paper-and-pencil tests, the paper-and-pencil tests remain the major component of the Achievement Testing Program--much to the chagrin of some educators (ATA, 1993). Nevertheless, paper-and pencil tests are deemed necessary even by some of the most ardent proponents of alternative assessment, such as Stiggins (O'Neil, 1992), Wiggins and Arter (Willis, 1990). Wiggins states: "As part of an array of results, properly put in their place, I think there's a role for [standardized] tests" (Willis, p. 6). Willis, says there should be a common-sense approach toward assessment, and quotes Arter in supporting his view:

> [Alternative assessment] doesn't automatically yield good information--you still have to worry about validity and reliability. "What you need to do first," she [Arter] advises, "is think about your purposes for assessment, then look around for the proper tool. Sometimes it may be portfolios, sometimes it may be a standardized test." (p. 6)

Traditional Paper-and-Pencil Tests

The Alberta Provincial Achievement Test is a mandatory paper-and-pencil test that is carried out in classrooms (Alberta Education, 1993a). In addition to this test, classroom teachers prepare and administer paper-and-pencil tests throughout the year--some more regularly than others, starting from about Grade 3 upward. These formal or informal paper-and-pencil tests are called objective and essay tests. The main advantage of a well-developed

objective test is that it "can quickly and efficiently evaluate a wide variety of skills and deal with a large amount of subject matter" (Etobicoke, 1987, p. 157). Because they are indeed objective, are considered unbiased, and quick and easy to mark, they have been readily used by teachers, especially those who teach several classes. Even researcher/professors, who support alternative forms of assessment, admit to using objective tests because of their manageability and efficiency (S. G. Paris, personal communication, October 28, 1992). But McLaughlin (1991) adds that "[M]ost of the tests in use today--and certainly tests of the multiple-choice variety--measure only what can be counted easily and cheaply" (pp. 248-249). Although these kinds of tests have undergone "blistering attacks from many quarters . . . they seem to survive and even to gain in potency" (Gardner, 1991, p. 133). From my observation, these tests seem to be poorly constructed on the whole, but pragmatically nevertheless, the standardized objective paper-and-pencil tests are here to stay; they are easy to manage, and cheap to use. Pragmatically speaking, multiple-choice tests, well constructed or not, are the most accepted form of assessment.

A Compromise?

Performance-based assessments, on the other hand, while deemed more authentic and appropriate than standardized objective tests, are more costly and time consuming according to O'Neil (1992):

> [S]ome experts say performance assessments are likely to be at least two or three times more expensive per student. . . . Another concern is the time that performance assessment requires in a school year already crowded with other tests . . . . Moreover, the time spent on performance assessment itself pales in comparison to the time needed for teachers to revamp their instruction to better prepare students for the new tests. (pp. 17-18)

I agree strongly with O'Neil's statement. As a test development specialist I found that it was far more time-consuming to construct performance-based assessments than multiple-choice test questions. In addition to that, I found that while I could easily test 33 000 students with a multiple-choice test, I had the resources and time at the Student Evaluation Branch to test only 500 students in the province, using performance-based assessments. In addition, these tests were not often congruent with the instruction for many of the students. For example, judging by the poor student results from the 1992 Grade 9 Mathematics Performance-based Assessment, one could surmise that students have little classroom experience with these kinds of mathematics hands-on activities (Alberta Education, 1992). To further support this conjecture, Grade 9 mathematics teachers indicated in a survey that they did not involve students to any great extent in hands-on instructional activities (Alberta Education, 1992).

New designs can be problematic too. Feuer et al. (1993) caution against the uncertainty of these new designs: "Most investigators working on the new testing designs are wading into uncharted statistical and methodological

waters" (p. 533). Also, in spite of the seeming appropriateness of these costly and time-consuming tests, Shepard (1991) reports that a recent study of New York's fourth-grade hands-on science assessment, showed that "the effect of this performance assessment might have been slightly positive but still superficial. Teachers had not developed the understandings necessary to transform their instruction and to make the new kinds of tasks an integral part of it" (p. 237).

Stiggins (O'Neil, 1992) in addressing this dilemma, advises: "Each test has a contribution to make. We can't throw away any of the tools at our disposal" (p. 19). By acknowledging the advice of these leading researchers in assessment regarding the advantages and disadvantages of standardized tests and performance-based tests, it seems that to capture what a student knows and can do in the broadest sense, the objective and essay tests should remain, with a complement of some forms of alternative assessment.

Students' Responses to Paper-and-Pencil Tests

The Essay Test

Andrew (Grade 9): "You could say that I'm not a huge fan of the test."

While most essays are approached as an ongoing-assessment and teaching process, occasionally the essay writing of students must be evaluated formally, as it is with the teacher-made essay tests, the Provincial Achievement Testing Program, and the Diploma Examination Program. What is it like to write an essay for the Diploma Examination? I asked university student, Kirk, to recall this moment. In his telling of the story, he used warfare-laden terms which reflected his military manoeuver in "beating the test." For example:

> Five minutes of the allotted two hours had already been expended to scout the essay issues. . . . [I had to] prepare ammunition for the essay . . . . [while] knocking off the multiple-choice. . . .I would stick to a game plan. . . . I would tackle the test . . . . My strategy was to complete the multiple-choice . . . . [if I had] spare time to kill . . . . [emphasis added].

I brought to Kirk's attention his military-colored choice of words. When pressed to explain why he chose those words he had this to say:

> [T]ests are a win/lose situation. It's a confrontation--to see who wins. If you don't watch it, the thing will eat you up. You have to attack it with confidence--more or less with the will of annihilating the enemy with a winning strategy. [emphasis added]

Gadamer (1989) and Gitlan (1990) in contrast with Kirk, view the art of testing as an open conversation, not open combat or "win/lose" as Kirk defines it. Gadamer states that the first condition of the art of conversation is ensuing that the other person is with us, rather than against us. In testing then, the examiner should not come across as the enemy, but rather as a friend who is

giving someone the opportunity to celebrate and acknowledge his or her strengths and weaknesses.

There is an interesting connection between students' test taking and teacher instruction. Teachers have similar tactics in instruction, as Aoki (1990) describes:

> Obediently following the curriculum guide, I helped students "attack" words and sentences is if reading were a war game. So as in warfare, I and other teachers indulged in "strategies" and "tactics," guided by targeted ends (many of them behavioral), the achievement of which meant victory and the failure to achieve, defeat. (p. 15)

Students brought up on a steady diet of "education warfare," quickly assume the disposition of winners and losers, of which 50% are instant losers if they are applied to the normal curve. While Kirk treats the essay exam as an exercise in combat, Leigh actually prefers essay-type tests: "Essay-type tests seem to 'tap what you know' in a more constructive way. I don't feel so threatened about those."

Barzun (Hoffmann, 1964) supports essay tests because they are more valid than the guesswork that is done in the multiple-choice test. Barzun believes that students do not really know what they have learned until they have actually explained it to someone else, as they must do in an essay test. And as a final caveat in treating the essay test meaningfully: "Each essay should be a learning experience . . . . Teachers should avoid assigning an essay only for the purpose of obtaining a mark" (Etobicoke, 1987, p. 144).

The Objective Test

Paco (Grade 11):

"I'm writing this Social Studies Test and it bites. There seems to be 1000 bloody questions on it and it seems like the damn test will never end."

Tonto: (Grade 10):

"The test was all multiple-choice. Right now I blank big time. 'Skip' comes to mind but the next question was about the first. 'Skip that one too.' On to the next--but find out that they're all on the same thing!"

Hoffmann (1964) cites the following account in The Tyranny of Testing in reference to objective tests, specifically, multiple-choice:

> On Wednesday, March 18, 1959, the Times of London printed the following letter from reader, T. C. Batty, to the editor:
> Sir,- Among the "odd one out" type of questions which my son had to answer for a school entrance examination was: "Which is the odd one out among cricket, football, billiards, and [field] hockey?"
> I said billiards because it is the only one played indoors. A colleague says football because it is the only one in which the ball is not struck by an implement. A neighbor says cricket because in all the other games the object is to put the ball into a net; and my son, with the confidence of

> nine summers, plumps for hockey "because it is the only one that is a girl's game." (p. 17)

The point that Batty is making is that any answer could be correct, but the key lies in the explanation, which is not required in this kind of test. He elaborates further about the validity of the test:

> Perhaps there is a remarkable subtlety behind it all. Is the question designed to test what a child of nine may or may not know about billiards--proficiency at which may still be regarded as the sign of a misspent youth? (p. 17)

This insightful anecdote illustrates the pitfalls of objective-type tests. Many teachers, particularly those in elementary school, are cognizant of the misinterpretations of test questions. Are students getting questions right for the wrong reason? Are they getting them wrong for the wrong reason? In other words, are the questions valid? Do they measure what they are designed to measure? Furthermore, are they reliable--do they consistently measure student learning? Take for example Figures 1 and 2. Figure 1 is from the 1989 Achievement Testing Program Mathematics Field Test, and Figure 2 is from the 1990 Achievement Test in Mathematics. In Figure 1, Grade 3 students were being measured on how well they understood decimals. The difficulty level in this example was 0.94, meaning that 94% of the students chose the correct answer. Knowing how difficult decimals are for Grade 3 students to understand, I asked some students how they knew the correct answer. The students replied that they just chose the box that had cupcakes with two cherries. This question then was invalid; it was only measuring how well students could count and not whether they had any knowledge or understanding of decimals. Again the invalidity was affirmed once I studied the statistical item analysis. The Corrected Point Biserial (CRPB) was 0.144 which meant that the question did not discriminate among the top, middle, and bottom students. The question was revised by teachers as shown in Figure 2 for the 1990 Mathematics Achievement Test. The result from this revision demonstrated a truer measure of students' understanding of decimals. In the 1990 Mathematics Achievement Tests written by about 33 000 students, only 37.9% of the students chose the correct answer, which was approximately the percentage of students that I expected would choose it. Further, the CRPB was very high at 0.344 which demonstrated that clearly the expected group of students, or the top group, was getting the correct answer, while many of the middle and most of the bottom students were getting an incorrect answer. The question in Figure 2 is a valid question, in other words, it measures what it purports to measure.

Figure 1

Field Test Question 1989

15. Which picture has 0.2 of the cupcakes with cherries on top?

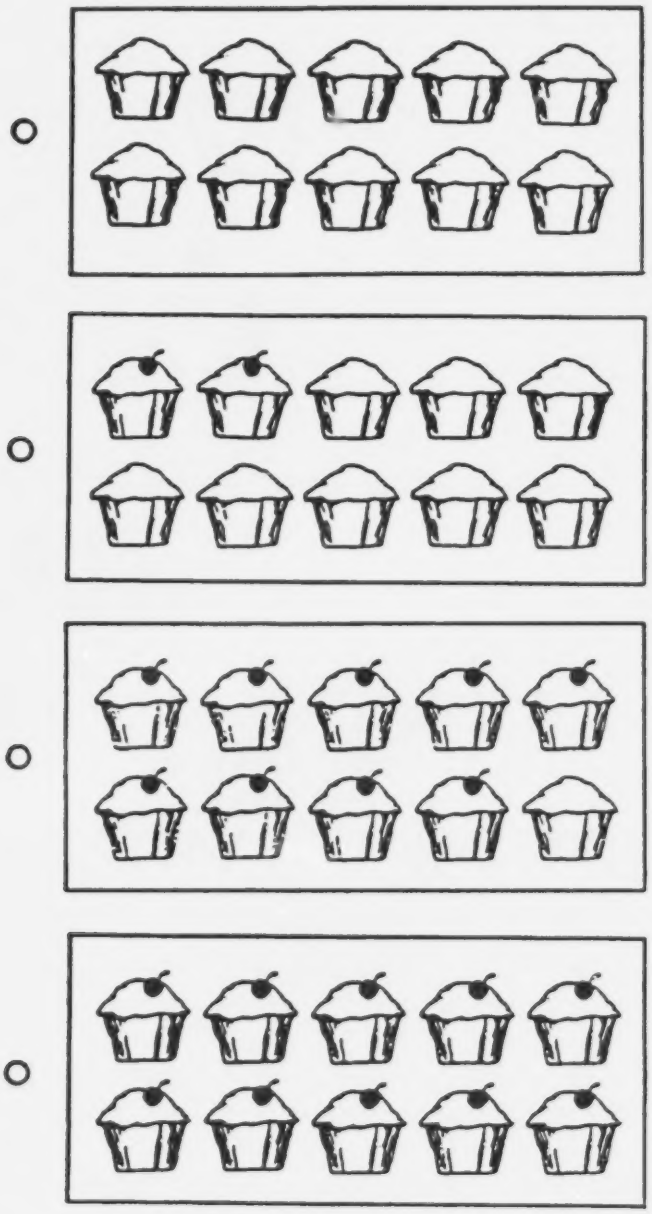
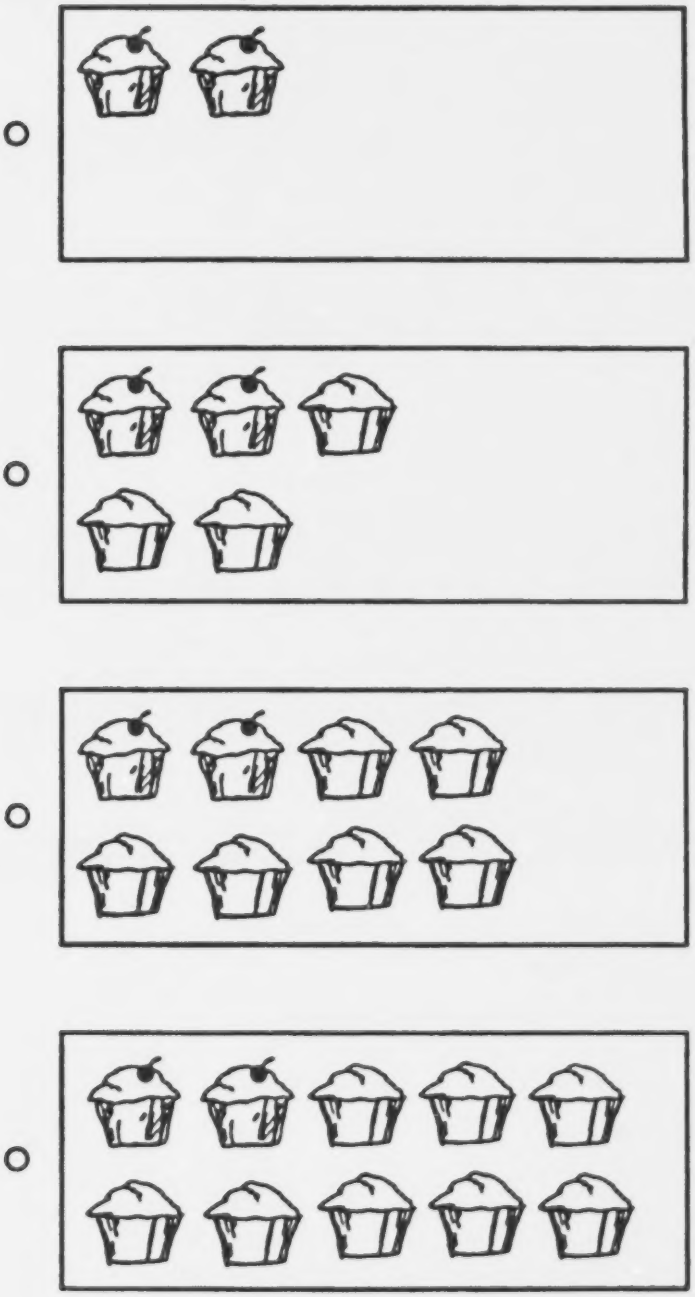


Figure 2

Achievement Test Question 1990

9. Which picture has 0.2 of the cupcakes with cherries on top?



One wonders how many invalid tests are written every year and it leaves one to question exactly how fair these tests are. Do all tests allow students to demonstrate what they know and can do? Finally, and most important in light of this investigation, what are the students' views on paper-and-pencil tests?

Addressing the Pedagogical Question

Rob (Grade 11): "Writing any final exam for any class sucks."

Many students have test experiences for only a few hours each year and during this time, I have noticed that some students behave in curious ways. At testing times, students exhibit dread on the one hand, and yet excitement on the other. Some chatter on endlessly about how little they know, while others withdraw and say little, or nothing at all. As some withdraw, suffering silently or mentally getting themselves "up" for the test, others attempt, often fruitlessly, to deal with the "adrenaline rush." What causes students to respond this way? What is this phenomenon that occurs prior to taking a test? Why do some students hide their feelings while others exhibit histrionics? Socially, it is expected and accepted that an upcoming test will cause students to behave uncharacteristically. Behavior before taking a test is expected to be anomalous. For some students, tests are powerful and significant events; for others they are just ordinary events during the course of the day.

Explicating Assumptions

What does this anomalous behavior mean? I, like many teachers, have my own explanations or theories about this phenomenon. Teachers tend to develop theories through practice and these theories fit with Clark's (1988, p. 6, in Kansanen, 1991) concept of theories. He writes: "teachers' implicit theories tend to be eclectic aggregations of cause-effect propositions from many sources, rules of thumb, generalizations drawn from personal experience, beliefs, values, biases, and prejudices" (p. 251).

In order to truly understand the testing experience, however, I need to "bracket," as Husserl (1991) proposed, and put aside my assumptions and theories about testing so that they do not interfere with my re-looking at the phenomenon (Osborne, 1990; Spiegelberg, 1975; van Manen, 1990). My assumptions were that testing may be harmful to students' self-esteem (or provide a false sense of superiority for others), it may cause anxiety, encourage short-term learning, and initiate extrinsic motivation. Many students perceive tests as unfair in that for some, tests do not capture their best effort. On the other hand, however, tests may be a rewarding experience for students. Testing may influence teacher behavior too, in that tests may cause teachers to focus on, and teach only to, the test.

It seems that I am not the only one who holds these assumptions that I have listed; they are shared by other educator researchers too; for example, the assumption that **testing may be harmful** because it lowers self-esteem is shared by Livingstone, Castle, and Nations (1989) who write:

> Testing students on skills for which they lack readiness causes failure. Repeated failure breeds low self-esteem and negative attitudes toward learning, perhaps causing some students to drop out. Students become bored with repeated testing; some become cavalier about taking tests, increasing their likelihood of school failure. (p. 24)

Rather than the test helping students identify their strengths and weaknesses so that they can set goals and work on these to improve learning, the opposite seems to occur: students develop a negative attitude toward their learning and tend to give up all together.

My second assumption was that **testing can make some students anxious, frightened, and worried.** Some students become physically sick before a test, or emotionally upset because of their previous experience with testing. Paris et al. (1991), in citing Wigfield and Eccles (1989), concur with this assumption:

> It is not just low-achieving students who experience test anxiety; students of all achievement levels suffer from worry and preoccupation about doing poorly on tests. Bright students may perceive unrealistic parental, peer, or self-imposed expectations to excel in all academic areas and thus feel heightened anxiety in evaluative situations. (p. 17)

Testing causes anxiety to students of various abilities and for various reasons. As well, teachers can unintentionally contribute to student anxiety. Some teachers become anxious because of "high-stakes" testing where school results are compared to one another. This teacher-anxiety is transferred to students, and students respond to this anxiety by becoming anxious themselves. Often teachers become anxious and guilt-ridden because they feel they have betrayed their students by giving them an inappropriate test. M. L. Smith (1991) agrees:

> Beliefs about the emotional impact of testing on young students generate feelings of anxiety and guilt among teachers. Among elementary teachers particularly, the belief is widely held that the Iowa [test] is "cruel and unusual punishment" for young students. During the testing session, many teachers themselves feel anxious, worrying about whether they have adequately prepared their pupils for the test, whether the pupils will perform their best, and whether there will be incidents of emotional distress (fighting, vomiting, crying, giving up, random marking of sheets and the like). (p. 9)

Secondary-school students are not spared anxiety either, it seems. Gardner (1991) believes that in particular, examinations at the end of secondary school are high stakes; so much so that "anxieties and skullduggery frequently surround them" (p. 133). It appears that test anxiety is not limited to one particular kind of student only; testing at all ages and ability levels seem to cause anxiety.

My third assumption was that **frequent tests may encourage short-term learning.** Tests that are given weekly encourage students to learn for

the test rather than learn for learning's sake, especially if it is a "high-stakes" test. The high-stakes test focuses on the results, rather than on the learning experience itself. However, Adams (1980) claims that "All learning . . . is motivated. The idea of 'learning for its own sake' is nonsense. Everything learned is learned for some purpose" (p. 59). Often, the students' only purpose is to pass the test instead of to learn for life. Too-frequent testing can result in learning becoming meaningless, disconnected, and not taken seriously. When given notes or an assignment, students often ask, "Is this going to be on the test?" or, "Will this count?" In other words, students learn a fragmented curriculum, governed by the tests that drive it.

My fourth assumption was that **tests are unfair; they don't capture the students' best effort**. Students respond differently to different test formats. For example, a multiple-choice test may not be the optimum way for some students to show what they really know, understand, and can do. Hoffmann (1964) acknowledges this assumption:

> [W]hat chance has the candidate to show even that he is capable of sustained, probing mental effort when the test skitters breathlessly from question to question? These tests favor the nimble-witted, quick-reading candidates who form fast superficial judgments. Some of these high-scoring candidates are extraordinarily able, of course; they are the ones who happen to have also at least some of the important attributes that the tests fail to detect. But other high-scoring candidates are meretricious and lack intellectual substance; yet they outscore their betters. (p. 92)

Broadfoot and Fenner, (1985) believe that "among the vast range of learning, abilities, skills, and personal qualities that an individual is capable of demonstrating at any given moment, most exams are only capable of assessing a small proportion of this total behavior" (p. 35). Tests often favor the student who has mastered the test format rather than the test content. This is hardly a valid or fair assessment of the student's ability, knowledge, and skill.

In spite of the assumptions that have so far spoken to the negative aspect of testing, my fifth assumption is that **tests can be a good "synthesizing experience."** Educators are well aware that testing is a good way to motivate students. Testing gives students a goal, a focus, and a target for which to aim. Tests can be viewed as a celebration, and a "pulling together" of knowledge--in other words, a positive "synthesizing experience" (T. Craig, personal communication, April, 1991). A Grade 11 student, Lyle, in speaking of the celebration of test taking, remarked, "By not being tested, it's like learning all the lines of a play, and not putting it on." Many students who have taken a test agree, and say that it was a good experience for them.

"I enjoyed that. I didn't know how much I really knew. . . ."

"I feel good about that test. It was my best shot . . . ."

"The test covered the course content. It was in line with the course material. . . ."

"It wasn't so bad really. It was fair--tough, good, clear questions and I think I did the best I could. I feel good about it--it was an O.K. test."

My undergraduate students have often expressed the view that the final test really pulled the course content together for them. Further, the students found that it was rewarding to realize that they did learn considerably more from the course than they had thought originally.

My sixth assumption was that testing may cause students **to be extrinsically motivated only**. Adams (1980) argues that

> [T]he notion of "intrinsic motivation," often invoked by "social behaviorists," is a metaphor for designating metaself desires, the goals of which are not "external" or obvious. It can also designate "internalized" social desires, as when a person works to earn the imagined praise of his reference groups. . . . (p. 48)

Students are often found learning for the sake of parents and peers rather than for learning for themselves. Broadfoot (1986) among others, deplores the "advent of public examinations on a mass scale, to which we owe a century of the class-teaching unit, subject-based curricula, didactic pedagogy, extrinsic motivation and norm-referenced assessment" (p. 31).

Van Manen (1991) addresses both extrinsic motivation and anxiety:

> [S]tudents do best when teachers show they care by teaching in a personal manner and by demonstrating that they believe in their students by setting challenging expectations. Of course, inappropriate or unrealistic challenges can be experienced as negative and contribute to students' unnecessary and unhealthy stress under teachers who create overly competitive environments, over-test, over-evaluate the students by constantly relating every assignment and every learning situation to the determination of grades and competitive standing. Indeed, learning cannot be positive in schools where testing madness reigns and where many students regularly and inevitably experience failure. (p. 58)

Clearly, when used as a motivating agent, it is the <u>test</u> that controls students' learning rather than students controlling their own learning. Rather than assessment empowering students by helping them address their strengths and weaknesses, it robs students of the real purpose of learning, which is learning for life.

My seventh assumption was testing causes teachers to **teach to the test.** I share this assumption with the National Council of Teachers of Mathematics (NCTM, 1989) which holds that tests have an influence on what actually is taught. Teachers who teach to the test only limit the students' learning to content on the test. Teaching to the test tends to value the test <u>results</u> over the <u>learning experience</u>. For example, Shepard (1989) argues:

"teaching to the test cheapens instruction and undermines the authenticity of scores as measures of what students really know, because tests are imperfect proxies even for the knowledge domains nominally covered by the tests" (pp. 5-6).

Too often teachers have students practice on remarkably similar items to those on the test. The students who are the most practiced at the items obtain the highest marks, rather than the students who may have deeper understanding of the content but who are unfamiliar with the test items. While students are expected to practice appropriate test-taking strategies to ensure test validity, this practice seems to become the main focus of classroom activity where high-stakes testing is evident. On the other hand, Wiggins (Brandt, 1992) believes that if it is an "authentic" test with meaningful real-world tasks, teachers indeed should teach to it.

In my research I tried to suspend these assumptions so that I could take a fresh approach to the concretely-experienced phenomenon of test taking in an attempt to describe it as faithfully as possible (Spiegelberg, 1975).

Theories and Information on Test-Taking Procedures

The comments from researchers and students demonstrate that students have different experiences in test taking; also educators have access to other sources on testing as well. There are guidelines available for testing from the Standards for Educational and Psychological Testing (1985). These guidelines ensure a fair test-taking procedure, but do they tell us about what it means to take a test? They do tell us how to construct valid and reliable tests and how to report test results fairly--but do they really inform us or bring us any closer to understanding the nature of test-taking itself? Understandings generated by adults from their interpretations of students' test-taking indicate that students do exhibit various uncharacteristic behaviors at test times. In the practical sense I illustrated these understandings through explicating my assumptions, where I used examples to show the impact testing has on students and on their instruction. But these are just particular observations; observations which have contributed to our generation of understandings about what test taking is like for students. Do these understandings and assumptions really tell us about what it is like to take a test? I think not. They don't reach the "meta-narrative" as T. T. Aoki (personal communication, May, 1991) describes it, or reach the deeper meaning of the experience of test taking because these understandings and assumptions are our concerns which have developed over time. These observations and meanings are only a multiple of surface observations and meanings (Denton, 1979). In other words, using the iceberg metaphor consisting of layers of visible and hidden meaning, as offered by Aoki, they are really just the tip or visible part of the iceberg. These understandings and assumptions are objective meanings which hide lived experiences of the students' testing experience (Heidegger, 1977). These are the hidden lived meanings of test taking that I am endeavoring to uncover and understand in my investigation.

Addressing the Pedagogical Sub-Questions

To understand the students' view on testing I sought to consider the following questions:

What is the lived experience like before a test?

What is the lived experience like during a test?

What is the lived experience like after taking the test?

To understand the meaning of the lived experience of testing, I tried to become attuned through researching the lived experience of students who told their stories in a written and oral form about what it is like to be tested. Through my becoming attuned, the meaning of the experience would be more readily revealed to me (Heidegger, 1977, p. 102).

CHAPTER III

Research Methodology--A Journey

Brimfield et al. (1983) believe that the methodology must issue from the question. But for me it had to suit me as a pedagogue as well so I set out in my search for an appropriate method. My deep interest in children and teaching led me to a human science approach. I chose hermeneutic phenomenological human science because pedagogy requires a phenomenological sensitivity to students' realities and lifeworlds, or lived experience. It requires a hermeneutic ability to make interpretative sense of the students' accounts of their lifeworlds to see the pedagogic significance of situations in which students are involved (van Manen, 1990). In this investigation I am attempting to interpret the students' stories to understand the pedagogic significance of testing. Finally, this research process requires textual reflection to contribute to the researcher's pedagogic thoughtfulness and tact, and through writing and reflection I hoped to understand the students' perspective of the meaning of taking a test.

I used the construction and reconstruction of my own and students' comments and metaphors to further illustrate the phenomenon of their testing experience. As Osborne (1990) states, the researcher can be his or her own data source. For this reason I have included my personal story, specifically my experiences as a student, a schoolteacher and university instructor, a test development specialist, and as a parent to help me and the reader understand the meaning of the testing experience. I used my journal as a research tool (Craig, 1990) which housed rich data from my work experience and experience as a doctoral student. Becker (1986), Butt, Raymond, and Yamagishi (1988), Connelly and Clandinin (1990), and Kvale (1983) also recommend personal narrative and autobiography as data sources. As part of a data source I have included a letter and some pertinent journal entries. The journal as a research tool is described later in this investigation in a separate section.

Hermeneutic Phenomenological Human Science

I believe that surveys, while perhaps being one way to gather information, are somewhat limiting when one is re-searching a testing experience. An actual written account such as narrative writing, or an interview instead, reaches the deeper meaning of what it is like to be tested (Aoki, 1990; van Manen, 1990). In light of this view, I used hermeneutic phenomenological methods as Polkinghorne (1983) describes to illustrate the students' experiences of being tested.

Methods are the particular activities that are used to achieve research results. Methods include various experimental designs, sampling procedures, measuring instruments, and the statistical treatment of data. They do not characterize the "what" of the objects of the research in terms of their content but rather the "how" of the research (Heidegger, 1977, p. 73). Heidegger suggests methods constitute a framework or a way than the way to research. Method is made up of the root words meta and hodos; meta means "from or

after," and hodos "journey." The word method is thus "a going-after" or "a pursuit." In the case of science, it is a pursuit of knowledge (van Manen, 1990).

The research method I used is phenomenological because it is a descriptive study of lived experiences (phenomena). It is hermeneutical also because it is an interpretive study which attempts to determine the meaning embodied in the lived experiences. By gathering lived experiences, reflecting on them and interpreting them through writing, one can make meaning of them. It is a way of discovering or uncovering the essence of the lived experience. Merleau-Ponty (1962) states that the purpose of phenomenological human science is concentrated upon "re-achieving a direct and primitive contact with the world" (p. vii). We do this through the notion of intentionality which indicates the inseparable connectedness of the human being with the lifeworld (Osborne, 1990; Valle & King, 1978; van Manen, 1990). The lifeworld is reached through the vehicle of language, as Humboldt (Aoki, 1990) claims: "a view of language is essentially a view of the world" (p. 21). This investigation is therefore, a direct inquiry where students express through language their consciousness of the phenomenon of taking a test.

Perhaps the best way to illustrate hermeneutic phenomenology is to show through example what it is not, and then what it is.

What Hermeneutic Phenomenology Is Not

Hermeneutic phenomenology is a human science but it is not an empirical analytic science; it is not technical or prescriptive (Valle & King, 1978; van Manen, 1990). Phenomenological knowledge is empirically derived, based on experience, but it is not inductively empirically derived as is the case with some other human science methodologies. Nor does phenomenology allow for empirical generalizations because this tendency to generalize may prevent us from developing understandings that remain focused on the uniqueness of human experience (Denton 1979; van Manen). Instead, it uses empathic generalization which holds that the interpreted structure obtained in one person should be found in the experience of other persons (Osborne, 1990).

Phenomenological research is not intended to test an hypothesis, rather, its aim is to understand a phenomenon by interpreting descriptions of experience after putting away one's assumptions (bracketing) as best as one can (Denton, 1979; Heidegger, 1977; Osborne, 1990). Phenomenological research is not used to prove that one thing is better than another; for example, to compare reading texts, or to compare one method of testing to another, because phenomenology is looking at the nature of something. Instead, a hermeneutic phenomenological investigation asks, "What is it like to read?"; or, as in this investigation, "What is it like to be tested?" (Barritt, Beekman, Bleeker, & Mulderij, 1984; van Manen, 1990, p. 22).

Phenomenology does not problem solve (Denton, 1979). Problem questions seek solutions, "correct" knowledge, effective procedures, winning strategies, calculating techniques, and "methods" which get results. A research study that pursues a certain problem is completed when the problem is solved. Because phenomenological questions are meaning questions, they ask for meaning and significance of certain phenomena. Because meaning questions can be better or more deeply understood, one may be able to act more thoughtfully and more tactfully in certain situations on the basis of this

understanding. Meaning questions, unlike problem questions, are never closed down, instead they leave possibilities open for further questions (Gadamer, 1989). For example, by understanding how students feel about time constraints on tests, how could educators be more sensitive about the time factor? One way could be by leaving the time allocation open so that students can demonstrate what they know and can do in adequate time, rather than being insensitive to students' needs and limiting their time. Another example of insensitivity is the teacher calling out test results. Again, how could teachers act more tactfully? Perhaps teachers could have the grades returned to students on individual pieces of paper, or allow the students to see their grades privately in the grade record book. A third example is by addressing the test-taking conditions themselves. How could educators see to it that students are made as comfortable as possible while taking a test? Teachers could check room temperature, the possibility of noise distractions, and evidence of adequate lighting so that students have every opportunity to do their best work with minimal interference.

Finally, while a human science investigation re-looks at a phenomenon from a scientific point of view, the human science investigation does not necessarily have a hypothesis, a fixed "method," or even a conclusion. Obtaining empirical generalizations is not the aim of phenomenological research; instead, it is an empathic understanding (Osborne, 1990; van Manen, 1990).

What Hermeneutic Phenomenology Is

First of all, phenomenological research always begins in the lifeworld, the world of lived experience as we immediately experience it, pre-reflectively rather than as we conceptualize, categorize, or reflect on it (Heidegger, 1977). A person cannot reflect on lived experience while living through the experience. The aim of phenomenology is to transform that lived experience into a textual expression of its essence in such a way that the effect of the text is at once a reflexive re-living and a reflective appropriation of something meaningful; a notion by which a reader is powerfully animated in his or her own lived experience. Buytendijk, a scholar from the Dutch Fenomenologische Pedagogiek, calls this "the phenomenological nod" when the reader recognizes and resonates with the experience (van Manen, 1990, p. 27). The resonation with the experience of the phenomenon of other people who are not in the investigation, is recognized as one check on the validity of the interpreted structure (Osborne, 1990).

The eventual aim of phenomenological human science, according to Merleau-Ponty (1962), is concentrated upon re-achieving a direct and primitive contact with the world as the world is immediately experienced. This involves textual practice or reflective writing which is "human science research": research which is the phenomenological and hermeneutic study of human existence. Again, it is phenomenological because it is a descriptive study of lived experience (phenomena) in the attempt to enrich lived experience by mining its meaning; and it is hermeneutical because it is the interpretive study of the expressions and objectifications (texts) of lived experience in the attempt to determine the meaning embodied in them (van Manen, p. 38). By gathering lived experiences, reflecting on them and interpreting them through writing, one

makes meaning of the lived experiences. It is a way of dis-covering the phenomenological essence of the experience (Kermode, 1979).

There are layers of meaning to every narrative of lived experience. By uncovering the layers, the "wellsprings of reality" are revealed, which, according to Heidegger (1977), is the source of being from which language comes (p. 66). Here Heidegger makes the point that the essence of language is existential and not linguistic. By uncovering the layers of meaning that each narrative has and reaching its essence, one can understand the deep meaning of the lived experience. This is the iceberg metaphor that Aoki describes whereby the deep meaning of lived experience is found hidden under the water (personal communication, May 7, 1991). Phenomenology is the systematic attempt to uncover and describe the structures, the internal meanings of lived experience (Husserl, 1991). It differs from almost every other science in that it attempts to gain insightful descriptions of the way we experience the world pre-reflectively, without taxonomizing, classifying, or abstracting it. Phenomenological research is not focused on statistics, cultures, psychology, history, or biography, as are other quantitative and qualitative methodologies. Phenomenological human science is the study of lived or existential meanings; it attempts to describe and interpret these meanings to a certain degree of depth and richness.

Phenomenology offers plausible insights that bring us in more direct contact with the world. Phenomenological research, then, is the explication of phenomena as they present themselves to consciousness where consciousness is the only access human beings have to the world (Heidegger, 1977; van Manen, 1990).

Hermeneutic refers to interpretation, as in the interpretation of biblical passages, and describes how one interprets the texts of life. All description is interpreted by the interpreter who has his or her own cultural bias that makes the description slightly different from other people's description (Kermode, 1979). For example, someone who has had experience with a teacher who has exerted power at test time, will be more likely to read power into a student's story than someone who has not had a similar experience. Also, some cultures are more accepting of the power and authority that teachers have and may not pay so much attention to the power in the story than someone whose culture is not so accepting of the teacher's authority. Semiotics is used to develop a practical writing or linguistic approach to the methods of phenomenology and hermeneutics. Hermeneutic phenomenology then, is a writing activity. Fundamentally, phenomenology describes how one orients to lived experience; hermeneutics describes how one interprets the texts of life; and semiotics is used here to develop a practical writing or linguistic approach to the method of phenomenology and hermeneutics.

The research inquiry that I will attempt to undertake is one that I hope will discover students' direct experiences, or, as phenomenologists would ascribe, students' relations "to the things themselves" (Heidegger, 1977, p. 74). Barritt, Beekman, Bleeker, and Mulderij (1983) add that it means looking naively "with a sense of wonder, at events and asking questions that usually aren't asked because of their simplicity" (p. 142). It means looking at the world directly, laying aside preconceived notions about even the most ordinary events, (such as taking a test) in order to see them in a new way. In other

words, it is a direct investigation and description of phenomena as consciously experienced, without theories about their causal explanation and as free as possible from conceptual presuppositions (Spiegelberg, 1975). Using a direct inquiry in my investigation in which students use language to express consciousness of a phenomenon, allowed me greater authenticity than if I had used, for example, survey techniques. I was able to probe deeper into students' written narratives and talk, to delve beneath the tip of the iceberg in this search for the deeper meaning of the testing experience, rather than the surface observation that is obtained through some other research methods that do not use language to obtain the meaning of a phenomenon.

Pursuing the Question Through Research Activities

Hermeneutic phenomenological research does not ascribe to set procedures as do other qualitative studies. The particular procedure or method used in any study depends upon the question being posed (Osborne, 1990). The question I posed was pursued through six research activities (van Manen, 1990) which are briefly outlined below. I used these as a basic framework for my research as I did in my pilot study.

Research Activity 1: Orientation to the Phenomenon

To begin the research I first oriented (or turned) myself to a phenomenon which seriously interested me. My orientation was testing and what it meant to the student; and my wondering about what it was like for a student to be tested as part of a classroom activity. According to Heidegger (1977) every project of phenomenological inquiry is driven by a commitment of "turning 'to the things themselves'" (p. 74). My decision to turn to testing as a research inquiry was a pragmatic one as well: not only have I deep interest in this topic as a teacher, but also have considerable experience in the field of student evaluation, at a local and provincial level. For this reasons, I am very interested in testing. The word "interest" comes from the source "inter" and "esse" which means "to be or stand in the midst of something" (van Manen, 1990, p. 43). Being in the midst of testing for many years is most likely the reason I am so animated and "interested" in this topic.

Once I formulated the phenomenological question I then explicated assumptions about testing. So that these did not interfere with my interpretation, I had to first recognize them and then set them aside as to "put out of play," or to "parenthesize" these assumptions as Husserl (1991) describes it (p. 20). There was purpose in this for the reader too. Those who read the inquiry would be able to take my perspective into account, because the knowledge coming from my research is not objective but perspectival. Given my orientation, the reader would then be able to judge whether the phenomenon of interest was illuminated from a particular perspective or not (Becker, 1986; Valle & King, 1978).

Research Activity 2: Data Gathering

Next, I investigated the experience of testing as students lived it rather than as we educators conceptualize it. To do this I gathered lived experiences from interviews and narratives from adults and students as they lived the experience of taking a test. Phenomenological research aims at establishing a renewed contact with original experience; a re-learning to look at the world by re-awakening the basic experience of the world (van Manen, 1990). Written narratives and interviews are two ways of establishing a renewed contact with the original experience. In addition, I used my personal experience, traced etymological sources, searched idiomatic phrases, used experiential descriptions of test taking in literature, used art as a source of lived experience, and consulted phenomenological literature to help me further understand the meaning of what it is like to be tested.

Research Activity 3: Thematic Analysis

Third, I reflected on the essential themes which characterized the phenomenon. This required the uncovering of layers of narratives to get to the essential or deep meaning of the phenomenon. A true reflection on lived experience is a thoughtful, reflective grasping of what it is that makes this or that particular experience especially significant. Therefore, phenomenological research, unlike any other kind of research, makes a distinction between appearance (which is a snapshot description so to speak), and essence (which is a deep meaning) of things of our experience (Gadamer, 1990; Heidegger, 1977; van Manen, 1990).

Research Activity 4: Hermeneutic Phenomenological Writing

Fourth, I described the phenomenon through writing and rewriting. Language and thinking are difficult to separate. Language and thinking are derived from the same root, logos. Thus, phenomenology is the application of logos (language and thoughtfulness) to a phenomenon (an aspect of lived experience) (Gadamer, 1990; Heidegger, 1977; van Manen, 1990).

Research Activity 5: Maintaining a Strong and Oriented Relation to the Phenomenon

Fifth, I maintained to the best of my ability a strong and oriented pedagogical relation to the phenomenon. A researcher, unless he or she has a strong orientation to his or her question, can easily wander aimlessly and become enchanted with narcissistic reflections or fall back onto taxonomic concepts. To be oriented to an object means that we are animated by the object and we avoid an attitude of so-called scientific disinterestedness (Husserl, 1991; van Manen, 1990). I found that at times I had to re-orient myself to the phenomenon because the students' stories were diverse and at other times I discovered I was getting off-track with my own wonderings. Because I was cognizant of my responsibility to remain oriented pedagogically

to the phenomenon, I was able pull myself in check to pursue my question as I had intended.

Research Activity 6: Check the Balance of the Research Context by Considering Parts and Whole

Last, I balanced the research content by considering parts and the whole. Qualitative research (qualis means "whatness") asks the question: "What is it?" It can be easy to get so caught up in the "what" that it is hard to see the forest for the trees. One needs to constantly measure from the study of testing the overall design of the text or study, against the significance that the parts must play in the total textual structure (Heidegger, 1977; van Manen, 1990, p. 33). For example it was easy to lose sight of the student in this study and instead get caught up with political issues of testing. I had continually to be aware of laying open the question of what it is like to be tested, and while these other forms of data and interpretations were important to the study, the focus had to remain on the students' perspectives on the meaning of taking a test.

Data Gathering Tools

The Journal As a Data Gathering and Research Tool

To broaden my data gathering further, I employed the use of my journal which I started at the early stages of my studies, partly through the advice of one of my professors, Dr. J. Blakey, and partly through a course that I took for my doctoral studies, "The Journal as a Research Tool" from Dr. T. Craig. I later taught "The Journal an Assessment Tool" as part of the university course on Evaluation of Student Learning, and my students and I journalled as part of the course. I, and several other researchers, (Brimfield et al., 1983; Connelly & Clandinin, 1990; Craig, 1983; Edwards & Craig, 1990; Fulwiler, 1989; Janesick, 1981; Kaiser, 1981; Langley, 1983; Progoff, 1975; and Yinger, 1985) are well aware of the benefits of journalling in teaching and researching. Fulwiler (1987) writes:

> [R]ecent research and scholarship suggest that the informal language of journals is too important to ignore. Leading language scholars, including Vygotsky (1962), Moffett (1968, 1982), Britton (1970, 1975), Emig (1971, 1977), Elbow (1973, 1982), Shaughnessy (1977), and Berhoff (1983), have argued, variously but persuasively, that human beings find meaning in the world by exploring it through language--through their own easy talky language, not the language of textbook and teacher. Such language may be oral as well as written, and is often expressed in language characterized as quite personal and colloquial. (p. 1)

Further, Vygotsky (1978) believes that writing and speaking differ in their relationship to our inner thoughts in that writing is more directly connected to internalized thought than speech, because of the other-directed, socially unconstrained nature of spoken utterances. Therefore, Vygotsky argues, in written dialogues, the closeness of the writing to one's thoughts is

retained. In the same way, my journal was a powerful adjunct in helping me in my research to reach a deeper understanding of the meaning of testing. I had found from past experience that journalling helped me develop insights into my own teaching and my students. It helped me understand my students and their needs and to develop better classroom strategies. My experience is supported by other teachers, as Fulwiler (1982) shows:

> Teachers, especially, can profit by the regular introspection and self-examination forced by the process of journal writing. The journal allows sequential planning within the context of one's course--its pages become a record of what has worked, what hasn't, and suggestions for what might work next time--either next class or next year. Teachers can use journals for lesson plans, to work out practice exercises, and to conduct an ongoing class evaluation. (p. 27)

During the journey of the dissertation there were moments of exhilaration but also moments of frustration. I found in these times of highs and lows, the journal was a friend I could write to and express my insights, and "let off steam." More important, as I read the students' stories, my journal became filled with questions and wonderings about students' experiences in test taking. I soon discovered that I came to a deeper understanding of students' test taking experiences. Craig (1983) identifies with this as well:

> One reconstructs moments of the past, not in order to wallow in the emotions associated with that (because some of these emotions can be very painful), but in order to let the energy of understanding that you've coped with those emotions take you forward to look with deepened insight at the future. (pp. 374-375)

Moreover, van Manen (1990) supports the use of writing as a way of knowing and understanding. He states: "Writing separates us from what we know and yet it unites us more closely with what we know" (p. 127). Van Manen and Progoff (1975) note that in writing we do not quite know what we know until we write it down. I found that this was true for me in my research inquiry: unclear writing externalized unclear thinking and understanding. Yinger's (1985) recommendation to the problem of unclear thinking is the following: "If you want to clarify your thoughts, try writing them down" (p. 23).

Data Gathering in Relation to the Investigation

To summarize, the research method I employed to investigate the student's testing experience was a hermeneutical or interpretive inquiry of lived experiences. As a guide, I based my research project using the information and recommendations that emerged from the pilot study I carried out during the 1991-1992 school year in Edmonton and Lethbridge.

Selection of Participants in the Research Project

The number of participants needed in a hermeneutic phenomenological investigation varies. I needed only as many participants as it would take to

illuminate the phenomenon of testing (Becker, 1986; Wertz, 1984). To execute the investigation, I selected approximately 20 students from ages of eight to eleven from the County of Warner #5, and the Rangeland School Division #9, to have them participate in audio-taped interviews. In addition, I gathered narrative writing from approximately 120 students from the ages of approximately 12 to 18 years from Rangeland School Division #9, and the Separate School District #9. Along with the secondary students were students from the class that I taught at the University of Lethbridge whom I invited to participate in the narrative writing as well. In the analysis, I also used the data from the pilot which included another 10 interviews and 150 stories from students from junior high to university level. I paid particular attention in looking for powerful anecdotes this time because I had found in my pilot study that powerful anecdotes were somewhat rare. For that reason I selected a large number of participants so that I could gather enough stories to help me illuminate the phenomenon. To protect the identities of the students, I ensured that pseudonyms were used throughout the research project.

Gaining Entry

In the fall of 1993, to gain entry into schools, I asked the superintendents if they would be willing to allow me to approach principals to find out if they would be interested in participating in the research project. All the superintendents agreed to allow me to make further arrangements to carry out the research. Gaining access, as Burgess (1984) cautions, was an essential and critical phase in the research process. It was a critical part because

> [T]he points of contact which the researcher has with an institution, organization or group will influence the collection of data and the subsequent perspective that can be portrayed. . . . The key issues involved in this phase of the research concern initial contact, ethical considerations, gatekeepers, the presentation of the study and the research bargain, all of which are considered in turn. (p. 45)

I received full cooperation from teachers and administrators in the research project; however, due to a schedule conflict I did not have the opportunity to interview the three students that were selected from the Lethbridge School District #51. Because of the nature of my research and because of my lengthy experience with all age groups in education, I was well received as a trusted researcher. The letter to parents of the students who participated in the project can be found in Appendix A.

Working With the Participants

Interviews Once I gained entry to the school I arranged to invite one student at a time to an appropriate area in the school where I carried out the audio-tape interviews without interruption. I introduced myself and made the student comfortable by engaging in conversation about himself or herself as I did in the pilot study. After the initial engagement (about five minutes) I briefly described my purpose for the interview and I had the student practice speaking into the tape recorder. During the interview, as Osborne (1990) cautions, I was careful so as not to "lead the witness" (p. 84). The interview was open-ended

and I used "active listening" as Gordon (1974, p. 66) recommends. To preserve anonymity I asked the student to choose his or her own pseudonym. I provided a pseudonym for the students who could not think or decide on one. Next I asked the student to think back to a time when he or she took a test, and then asked the student to describe the experience directly as he or she experienced it.

At one school I followed the suggestion of the candidacy committee and Becker (1986) and interviewed two groups of Grade 3 students. This made for a lively encounter of students retelling their testing experiences. These interviews were enriched because students' experiences triggered others, and some rather spirited debate ensued.

Students were aware that more than one data-gathering interview might be needed, especially if the participants reflected on the phenomenon after the interview, and also if I needed to further verify my interpretation and understanding. I met with some students on a few occasions for follow-up to clarify meanings. These successive data-gathering interviews were valuable because they created a re-spiraling effect and enabled me to draw a more complete illumination of the phenomenon (Osborne, 1990).

Narrative Writing Upon gaining entry into the secondary-school classroom I arranged to collect narrative writing from the students. I informed the participating teacher that I needed about half an hour to explain the activity to the students, have them carry out the activity, and then explain the purpose of the research. I learned from my pilot study that it is better to explain the nature of the research last so that it will not influence their writing in any way; students may think they are expected to write about a bad testing experience only, as Cornett (1990), Ellis (1993) and Fullan (1991) have noted. Ellis supports this view with a student anecdote:

> So many times in University, and even before that, we are trained into thinking that we will write the way our teachers want us to. Sometimes I am afraid to write how I really feel because my teacher will either mark it wrong or give me a low mark. (p. 461)

If the students decided not to submit their writing after the explanation of the purpose of the study, they were free to do so. Again, to preserve anonymity, I had the students use pseudonyms in place of real names.

I carried out the same procedure when I involved the students from the University of Lethbridge. Here I incorporated the protocol (narrative) writing into the course that I taught, Evaluation of Student Learning, as I did in my pilot study. This was a very fruitful exercise and through it, the students reached a deeper understanding of what it is like for a student to be tested. I collected all the lived experience data in this second round from December, 1993 to February, 1994.

In return for my intrusion into the schools, I intend to send a summary of the thematic analysis to each interested school involved in the project. The same information will be available to interested university students. In addition, I have offered to do inservices for teachers for a professional development day or as part of their staff meeting professional development.

Thematic Analysis in Relation to the Investigation

Tabular Presentation of the Thematic Analysis

The analysis of the data depends on the purpose of the researcher and the skills the researcher has in data analysis (Osborne, 1990). There were several procedures available for me to try. One way of analyzing the data that I tried was through a fairly structured tabular form of thematic analyses (Barritt et al., 1984). To do this, I read over the narratives and transcribed audio-taped interviews to get a feel for the data. I analyzed them on a sentence-by-sentence basis and then I reduced the narratives to simple paraphrases. Following that, I interpreted the themes and clustered and ordered them. These were then arranged in a schematic form as shown in Appendix B.

Written Synthesis of the Thematic Analysis

Another way I used to present the schematic structure was through hermeneutic phenomenological writing. Osborne (1990) suggests that the way in which the thematic structures are presented depends on the researcher's writing ability, the preference of the researcher, and the audience for which the study is intended. Osborne offers the following caution to the researcher regarding his or her choice of presentation of the data: "Phenomenological researchers who have highly developed interpretative and writing skills may decide to immerse themselves in the data and present the phenomena in a descriptive narrative (Alapack, 1986). This approach is not recommended for the novice researcher" [emphasis added] (p. 85).

Further, Barritt et al. (1983) add: "The value of phenomenological research is not assured by methodological orthodoxy but rather by the researcher's ability to express shared experience in an understandable way. This is not always an easy task" (p. 139).

After practicing the descriptive narrative writing in my pilot, I then wrote a descriptive narrative presentation in the research project. To carry out the written synthesis of the thematic analysis, I reflected on the themes emerging from the data which characterized the phenomenon. Phenomenological themes may be understood as structures of experience. When I analyzed a phenomenon, my intent was to determine what the themes, the experiential structures were, that made up that experience. Once these lived experiences were gathered, I worked at mining meaning from them. I read them over and asked, "What is going on here? What is the essence or eidos of the notion of being tested?" as van Manen (1990) suggests.

To write is to rewrite (van Manen, 1990). Sartre describes writing and rewriting as an aim at creating depth; constructing successive or multiple layers of meaning, thus laying bare certain truths. This cannot be done in a single session so I was quite prepared to do a considerable amount of rewriting to create a phenomenological text: one that "succeeds when it lets us see that which shines through, that which tends to hide itself" (van Manen, 1990, p. 130).

Other means of data gathering that provided insight into the meaning of the experience of being tested were etymological, phenomenological, and art sources, and idiomatic phrases and experiential descriptions in literature.

These sources are illustrated in more detail in Chapter IV: Other Sources of Data.

Effects and Ethics of Human Science Research

Phenomenology can be thought of as a kind of action-oriented research (Barritt et al. 1984; van Manen, 1990). Phenomenological research gives us tactful thoughtfulness and in-depth understanding. Pedagogic thoughtfulness and tact, or action-sensitive knowledge, are essential elements of pedagogic competence. From this research project I attempted to reach a deep understanding of what it is like to be tested from the student's point of view. Because I felt that this may have implications for the way testing programs at all levels are being carried out, I was aware that the research could be seen as a challenge to current testing practices.

Another factor of which I was aware was false hope. Many teachers, administrators, and education councils expressed their approval in and support of my research project because these educators would like to see a change in current testing practices, particularly at the provincial level. Others saw this as a "witch hunt" on student testing and I have had to assure them that this was not the case.

I was also aware that a research project such as this one could have a transformative effect on me. According to Becker (1986) and van Manen (1990) I should not be surprised to reach a heightened perspective, increased thoughtfulness and tact on the issue of testing students in particular. Brimfield et al. (1983) support this notion: "I am not untouched by or detached from the process and the product of my research. Therefore, I must engage in research with an appreciation of the fact that I shall emerge from it slightly changed as a person" (p. 14). In support of that notion I note that my journal entry for March 15, 1994, reads:

> *I find that as I read through the students' stories that I view testing a little differently and more sensitively now. I had not realized the painful impact tests have on students; nor did I realize the extent to which some teachers exercise power through discipline and punishment by testing--just as Foucault said!*

The Pilot Study

"To proceed without a pilot study, in any but the simplest of studies, can only be conceived as a form of research 'Russian roulette'" (Mouly, 1978, p. 69).

Heeding the advice of Mouly (1978), I carried out a pilot study involving students from the Edmonton and Lethbridge areas during the 1991/92 academic year. As Mouly further points out, a pilot study is a wise investment of time in that it provides insights into the nature of the investigation and it illuminates unforeseen difficulties at a time when it is still possible to have them resolved.

Experimental studies use pilots to test out an instrument (Ary et al., 1985, p. 87). In my case I was the instrument, or as Barritt et al. (1983, p.

146) term it, "instrument of analysis" so I had to "put myself to the test" in gathering, analyzing, writing, and interpreting the data. I believe a contributing factor to validity is my being the "instrument" itself (Becker, 1986). Guba (1981) would argue that I am a competent investigator because of my experience in student evaluation and because of my teaching experience, for example Guba explains: "inquirers often act as instruments . . . . Hence it is important to know about the inquirer's training and experience in reaching a judgment about the trustworthiness of his or her data" (p. 75).

Purposes of the Pilot Study

I had three purposes in undertaking the pilot investigation: (a) To gain experience in using the hermeneutic narrative inquiry methodology; (b) to determine if a hermeneutic narrative inquiry would be the most appropriate one for me to use for this investigation; and (c) to gain a preliminary understanding of the students' perspective on the meaning of taking a test.

Learnings and Practice from the Pilot Study

I learned through the experience in using hermeneutic narrative inquiry methodology that gaining insights into the meaning of what it is like to be tested is an ongoing process. I found that there really was no distinction between the pilot research and dissertation research. I did determine that hermeneutic narrative inquiry was the most appropriate for me to use, given the pedagogical question at hand because I did gain some preliminary understanding of the students' point of view on the meaning of taking a test.

The pilot, then, was essentially a learning exercise and a "practice run" for gathering and interpreting data and I learned practical things as well as those that I set out to learn in the pilot. For example, I learned that it was better to limit the age of the participants to no younger than age eight, (Grade 3). I learned how important it is to motivate students to write directly. The pilot study gave me opportunity for practicing data management and organization; and finally, it gave me practice in writing, reflecting, and rewriting to uncover the structures and deep meanings of the text.

Limiting the Age of Participants: First, I learned that it was advantageous to limit the age of students for interviews; very young students, for example, seven years or less, could not express their views on test taking well, and nor had they had much experience with tests. They were not particularly interested in the topic and digressed to topics that were more meaningful for them. The youngest students in the research that I later carried out were eight years old.

Motivating Students: Second, I learned to find a better way to motivate the students to write more directly than they had done in my first attempt. During the actual research I spent more time explaining what I wanted from the students instead of treating them as subjects in an experimental design, for example, avoiding giving too much direction and leading them to a biased response. The second time I was clearer in my instructions and yet I opened the door for them to write about any test experience that stood out in their

minds from the others, good or bad, or any other one that emerged. I also asked them to try to write or tell it as though the test was happening right at that moment. The resulting stories and transcripts were far superior to those of my pilot study where I gave the students minimum direction. The stories were "alive" the second time round and while not all of the students captured the moment, many did.

Data Management and Organization: Third, I learned how to manage and organize the data. I had ample practice at organizing the data through recording, classifying data and finally developing a chart to present it in a graphic summary. This made the management of the stories easier and it was an excellent working summary and framework that I referred to during my interpretive work.

Practice at Writing, Reflecting, and Rewriting the Text: Fourth, I had opportunity to practice the writing, reflecting, rewriting of the text, to reach structures and deep meanings. Once I reached down to the deep meanings as far as I could go, I structured the meanings into the existentials of relationality, corporeality, spatiality, and temporality. These were then arranged according to time periods of before, during, and after the test. Investing the time and effort initially as I did in the pilot study was well worth it and made the research easier and less time consuming in the second round.

Reliability, Validity, and Generalizability

It was not until I began my doctoral studies that I became aware of the qualitative paradigm. Before that, I lived and worked in the quantitative paradigm when I worked as a test development specialist for Alberta Education. Part of the former paradigm lives within me and I feel I should address this in my dissertation. Brimfield et al. (1983) in their journal article, "Person as Researcher" are empathetic to the researcher as a unique person acknowledging his or her construction of his or her own life-world and "biographical situation" and that "[h]is or her research career is unmistakably a reflection that he or she has been" (pp. 12 & 15). My master's thesis, A Comparative Study in the Learning of Basic Mathematical Skills in Grade One Using CAI and Traditional Teaching (1987), was a classic quantitative study, and moving over to the "other" paradigm of qualitative research has been a growing experience for me. In my master's thesis I set out to prove that one kind of instruction was better than the other whereas in hermeneutic phenomenological inquiry I have attempted to understand the experience of instruction and testing. I subscribe to the constructivist view of learning held by Grennon Brooks and Brooks (1993), Jonassen (1991a & 1991b) and Reigeluth, (1991). These researchers view constructivism as the notion that "understandings are constructed by using prior knowledge to go beyond the information given" (Reigeluth, p. 36). Further, Jonassen (1991) argues that "[C]onstructivism is concerned with how we construct knowledge from our experiences, mental structures, and beliefs that are used to interpret objects and events" (p. 29). Because I am a lifelong learner, I must start with what I know and with what I am comfortable, such as the quantitative paradigm, and

move into the qualitative paradigm--gently. In the meantime, my prior experience in research urged me to put due focus on reliability, validity and generalizability. To help me bridge this paradigm, I referred to Aksamit (1990) and Guba (1981) who apply naturalistic terms rather than scientific terms to qualitative research. Nevertheless, I will not use their terms as such, instead I will make reference to them and use the scientific terms of reliability, validity, and generalizability to demonstrate how they are addressed in my hermeneutic phenomenological inquiry.

Reliability

"The phenomenological researcher's approach to reliability is based upon the observation that human perception is perspectival and contextual" (Osborne, 1990, p. 87).

Aksamit (1990), Denton (1979), Guba (1981), and Osborne (1990) hold that many researchers may have several interpretive perspectives on the same phenomenon and that sameness (reliability) can arise out of the inconsistency, variability, and relativity of human perception. The example given is that of multiple perspectives which can lead to a unified description of a shared phenomenon. Osborne concludes with the following caveat:

> The major risk of unreliability and invalidity resides in the interpretive process, for as Kvale (1983) notes, the researcher can "read data as the devil reads the bible.". . . The best the researcher can do is to argue a particular interpretation as persuasively as possible, supported by references to the data, and leave the final judgment to the reader. (p. 87)

Validity

"A good phenomenological description is collected by lived experience and recollects lived experience--is validated by lived experience and it validates lived experience. This is sometimes termed the 'validating circle of inquiry'" (van Manen, 1990, p. 27).

I have shared my research with my students in my university classes, with my colleagues at the University of Lethbridge, and with teachers in presentations province-wide, and administrators, teachers and students have validated my understandings of the meaning and experience of being tested. I was particularly motivated to use my research findings because one of my colleagues, C. M. Chambers (personal communication, September, 1993) shares her research in university teaching because she holds that it validates your research and at the same time students validate you, as a teacher and researcher. By offering their input into the research this way, students are empowered; they realize that they are co-researchers and that they are sharing your research experience. By identifying with your discipline, you actually embody this discipline, and when you identify with your subject matter in this way, students feel you <u>are</u> what you teach (van Manen, 1992).

As I mentioned in the discussion of the pilot study, a contributing factor to validity is my being the "instrument" itself and because of my experience in student evaluation and teaching, my varied experience as a researcher should help the reader to reach a judgment about the trustworthiness of my data (Aksamit, 1990; Guba, 1981).

Osborne (1990) believes that there are four major ways in which the validity of a researcher's interpretations can be assessed. The first is by bracketing or suspending assumptions about the phenomenon. This notion was addressed earlier under the heading "Explicating Assumptions." The second way is to check interpretations with the participants. I found it very rewarding in my investigation to return to the students with my interpretations and find agreement. Asking the informants of the investigation to read and comment on the accuracy of my account is also recommended by Barritt et al. (1984). The third way of validating interpretations of phenomenological data is to present coherent and convincing arguments. The fourth and final check depends upon the extent to which the interpretations resonate with the experiences of other people not in the study, who have experienced the phenomenon. I used the fourth check all along, involving colleagues, friends, family, and readers from the education community to validate the interpretations. These readers included an employee from the Student Evaluation Branch, colleagues from the University of Lethbridge, a superintendent of schools, a school principal, a school board trustee, a teacher, a parent, some students who participated in the study, and two students not involved in the study.

Generalizability

Phenomenological narrative inquiry uses empathic generalization which holds that the interpreted structure obtained in one person should be found in the experience of other persons (Osborne, 1990). Aksamit (1990), Connelly and Clandinin (1990), and Guba (1981) support this notion using the term "transferability." Transferability is dependent upon the similarity of the fit between two contexts, or between the interpretation and the experience of the reader. Because virtually all social/behavioral phenomena are context-bound, it is impossible to develop "truth" statements that have general applicability; rather, one must be satisfied with statements descriptive and interpretative of a given context.

CHAPTER IV

Other Sources of Data

I used several other data sources for my investigation, because the lifeworld is both the source and the object of phenomenological research (Heidegger, 1977; van Manen, 1990). This data-gathering was not limited to that which is found in the so-called "hard" sciences. As van Manen says, when someone relates a valuable experience to you, then you have gained something, even if it is not quantifiable. In my research I used the following sources that I felt worthy to gain meaning of the experience of being tested: personal experience from my journal, etymological sources, idiomatic phrases, observations of students taking tests, experiential descriptions in literature and film, art in the form of cartoons, anecdotes of testing experiences from non-fiction works, and phenomenological literature where this topic, or aspects related to it, have already been addressed, for example, Barritt et al. (1983, 1984); Bollnow (1960,1989); Gadamer (1989); Langeveld (1983); and van Manen (1986; 1991).

Experiential Descriptions in Literature

Other ways to investigate experience as we live it is through experiential descriptions in literature (van Manen, 1990), or "the way through the texts" (Spiegelberg, 1975, p. 16). Van Manen holds that literature can "serve as a fountain of experiences to which the phenomenologist may turn to increase practical insights" (p. 70). I investigated this and I, too, found that literature can provide insight into experiences that people have during their lifetimes. Author Amy Tan describes in her autobiographical novel, The Joy-Luck Club, her dealings with her mother regarding test results. Tan (1989) writes: "And after seeing my mother's disappointed face once again, something inside of me began to die. I hated the tests, the raised hopes and failed expectations" (p. 144). Tan expresses the dismay over the test's disclosure that she (Tan) wasn't good enough. The test results, assumed to be legitimate, tells a mother more about her child than the mother knows already. But does it? Doesn't the mother really know the worth of her child? Why does a test have such a powerful influence over people's intuition and judgment? Tan's mother does not have faith in her self-knowledge about her daughter, but instead believes in the test results. The results are consistent. Amy Tan, no matter how hard she tries, just does not "measure up."

Another source that I gathered was from Gilbert and Sullivan's Iolanthe from Hoffmann (1964). The Fairy Queen uses the threat of an examination as terrible punishment for the members of England's House of Lords:

Peers shall teem in Christendom,
And a Duke's exalted station
Be attainable by Com-
petitive Examination!'" (p. 30).

Neither of these anecdotes are flattering toward test taking, but even though they are biased against tests, the literary descriptors help provide an understanding of how testing has been experienced in times gone by. They are seen as revelations of weaknesses, true indicators of a person's worth, and also as punishment of the most dreaded kind. My search for positive comments about tests so far has been fruitless. The perception of testing from the literature is, in a word, negative.

Another reference to "test" was made by Socrates (Warmington, 1956). Socrates refers to the term "test" when he explains to Glaucon the need for testing to determine the highest quality Guardians:

> [W]e must examine who are best guardians of their resolution that they must do whatever they think from time to time to be best for the city. They must be watched from childhood up; we must set them tests in which a man would be most likely to forget such a resolution or to be deceived, and we must choose the one who remembers well and is not easily deceived, and reject the rest. Do you agree?"
> "Yes."
> "Hard labor again, and suffering, and contests--in all these we must watch them in the same way."
> "Quite right," he said.
> "Now take the third kind of competitive test, bewitchment--here too we must try them and see what happens. You know how they bring colts among noises and tumults and see if they are timid; in the same way while the men are young we must bring them into situations of terror, and again change the scene to pleasures, and test them even more than gold in the fire. Then see if one proves hard to bewitch, and keeps his graces in all, if he is a good guardian of himself and the music which he has learnt, if he shows himself well in rhythm and concord through all this, and such as would be most useful to the city and to himself. Then whoever is thus tested among boys, youths and men, and comes out immaculate, he must be established as ruler and guardian of the city; honors must be given him while he lives, and at death public interment and other magnificent memorials. Those who fail are to be rejected. Some such method as this, Glaucon, I think there should be in our selection, and so we should appoint our rulers and guardians; but this is only a sketch, not to be followed in every detail." (Warmington & Rouse, 1956, p. 213)

Notice, too, how Socrates uses the term "try" where the examinees were put on trial to test their mettle and strength: "We must <u>try</u> them and see what happens." The test as experienced by students is indeed a trial. A trial that they experience early in their lives. But need it be such a trial? Socrates may not have meant test-taking as a negative experience. Notice how he is looking for strengths. He did not say, "Let's identify the weak ones." By finding the strong ones he will then identify the weak, but his focus was on the positive. This is indeed a "fair trial."

Finally, song lyrics can illustrate how some students may view education, or rather, "schooling." Pink Floyd makes that point with the following lyrics in "The Happiest Days of Our Lives" and "Another Brick in the Wall":

The Happiest Days of Our Lives
When we grew up and went to school
There were certain teachers who would
Hurt the children anyway they could
By pouring their derision
Upon anything we did
And exposing every weakness.

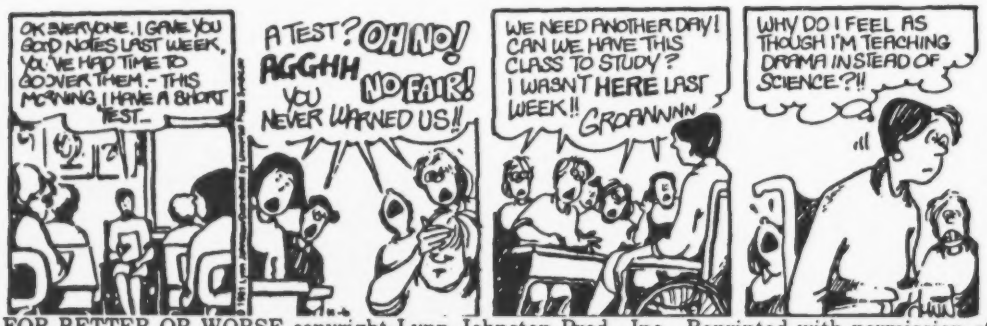
Another Brick in the Wall
We don't need no education,
We don't need no thought control
No dark sarcasm in the classroom
Teachers leave the kids alone,
Hey teacher leave us kids alone,
All in all it's just another brick in the wall
All in all you're just another brick in the wall.
(Floyd, P., 1979).

Art As a Source of Lived Experience

Cartoon creator, Lynn Johnson depicts what it's like to take a test. Where does Johnson find her material? In an interview in a local newspaper she said that she based all her cartoons on her experiences of everyday life. It's interesting that like all other "test cartoons" that not one positive experience of testing is illustrated: Students in this cartoon in Figure 3 view test taking with horror.

Figure 3

Cartoon: For Better or Worse--Before the Test


OK EVERYONE. I GAVE YOU GOOD NOTES LAST WEEK, YOU'VE HAD TIME TO GO OVER THEM. - THIS MORNING I HAVE A SHORT TEST.
A TEST? OH NO! AGGHH NO FAIR! YOU NEVER WARNED US!!
WE NEED ANOTHER DAY! CAN WE HAVE THIS CLASS TO STUDY? I WASN'T HERE LAST WEEK!! GROANNNN
WHY DO I FEEL AS THOUGH I'M TEACHING DRAMA INSTEAD OF SCIENCE?!!

FOR BETTER OR WORSE copyright Lynn Johnston Prod., Inc. Reprinted with permission of UNIVERSAL PRESS SYNDICATE. All rights reserved.

With reference to students' views after a test, this cartoon (Figure 4) illustrates Melinda's lament about remembering everything <u>after</u> she has taken the test. In the last of the four drawings, the picture of the girl (Elizabeth) expresses the frustration and hopelessness of it all.

Figure 4

Cartoon: For Better or Worse--After the Test

THE ANSWER TO NUMBER 17 IS MADAME CURIE!
THE INVENTOR OF THE MICROSCOPE WAS ANTONIE VAN LEEUWENHOEK!...
CELSIUS AND FAHRENHEIT REACH THE SAME POINT ON THE THERMOMETER AT MINUS 40 DEGREES.
...IT'S AMAZING HOW MUCH YOU CAN REMEMBER AFTER YOU'VE HANDED YOUR TEST PAPER IN!
LYNN

FOR BETTER OR WORSE copyright Lynn Johnston Prod., Inc. Reprinted with permission of UNIVERSAL PRESS SYNDICATE. All rights reserved.

Figure 5 is an example of another piece of art work that speaks to testing. I believe this one illustrates the justice and fairness of tests. As education researcher P. Gammage once asked, "Whoever grew taller by being measured?" (personal communication, 1991).

Figure 5

Art Illustrating the Issue of Fairness of Tests

Reprinted with permission of THE ATA MAGAZINE.

It appears that the man who is weighing the student is aware of the power that he has over the student. It is interesting that "power" was a significant finding in my interpretation of students' stories of taking a test. This is elaborated on further in Chapter VI. As Gadamer (1989) states, we

have to "discover the question which it answers, if we are to understand it as an answer." The question in this case could be, "What is it like to be tested?" The artist illustrates the answer as a stacking up, or a measuring up against others; it is a quantifiable pass/fail, or win/lose experience. Gadamer (1989) speaks of art as hermeneutic:

> We can understand a text only when we have understood the question to which it is an answer. But since this question can be derived solely from the text and accordingly the appropriateness of the reply is the methodological presupposition for the reconstruction of the question, any criticism of this reply from some other quarter is pure shadow boxing. It is like understanding works of art. A work of art can be understood only if we assume its adequacy as an expression of the artistic idea. Here too we have to discover the question which it answers, if we are to understand it as an answer. This is, in fact, an axiom of all hermeneutics: we described it above as the "fore-conception of completeness." (p. 370)

Cartoons (iconic representations of testing as visual semiotics) can have such powerful meaning that it resonates with one's experience. D. G. Smith (1990, p. 25) introduces his article "Children and the Gods of War," with a provocative cartoon. The cartoon illustrates the contrast of power between the joint chiefs of staff and a little girl. Smith suspects that the reader is perhaps more effectively attuned to the point by interpreting the meaning of the cartoon than through words of text. One time, as I presented a cartoon on an overhead transparency at a workshop, a teacher said, "Boy, that cartoon sure hits the nail on the head!" In other words, the teacher reinforced my thoughts on how cartoons can produce a "phenomenological nod" in experienced educators.

Experiential Descriptions in Film

The Educational Testing Service (ETS) is the largest testing service in the world. It was featured in the film, Stand and Deliver which illustrated the power of this testing service and its unfairness to students, among other things. This film is based on a true story of a teacher named Jaimie Escalante who taught at Garfield High School in East Los Angeles. The students, because of poor test scores, were partly responsible for the potential loss of accreditation of the school. The low scores were blamed on the poverty in that area, but Escalante took the other tack and said that the students were not challenged enough and that "children will rise to the level of expectations." Escalante, through dedication and rapport with students, raised the scores. His students took the Advanced Placement Exam and all passed. However, because they had "an unusual agreement of incorrect answers," the ETS investigators accused the students of cheating. The students were forced to retake the test, and again they all passed. The story became one of the powerless overcoming the powerful.

Tracing Etymological Sources

Other ways to reach an understanding of what it is like to be tested is by tracing etymological sources and searching idiomatic phrases (van Manen, 1990). Let us examine the origin of the term "test" to see if that will help to understand the testing phenomenon. According to Random House Dictionary, (1987), "test" originated from the word "cupel" or "testum," an earthen pot where metals and alloys were mixed. To determine the quality of a metal, it was "put to the test." "Test" is further defined by Random House Dictionary as: the means by which the presence, quality, or genuineness of anything is determined; a means of trial; the trial or the quality of something: "to put to the test" (p. 1961). In education, a test is intended to determine the truth, authenticity or genuineness of something, such as students' knowledge and skills.

For teachers, a test is meant to be an investigation into what a student knows and can do. Perhaps we should look more closely at the definition of "investigate" so that we can understand the experience better. Random House Dictionary (Flexner & Hauck, 1987) defines "investigate": to examine, study, or inquire into systematically; search or examine into the particulars of; examine in detail. When we "check someone or something out" we are essentially investigating that person or thing. The term "investigate" is synonymous with "research" according to Random House Dictionary. In the course of investigation we are really researching. Is this what the nature of testing is then? Are we in essence re-searching what the student knows or is? If we are, then testing is not a "gotcha game" as Maeroff (1991) describes it where the goal is to spring surprises on students and catch them unprepared for the test question. Testing is in this sense a genuine re-searching for the qualities, strengths and worth of the student--the qualities, strengths and worth that we value. G. Wiggins (personal communication, Alberta Education, 1991) says that, "We measure what we value; we value what we measure." In everyday living we do that, so it seems that it makes sense to do that in testing. For example, we measure or assess a relationship to make a judgment, because we value that relationship. By authentically and genuinely wanting to know the students' strengths we also give students the opportunity to demonstrate their strengths by aligning the test with the course content, giving students the test criteria and blueprint. We ask questions clearly, honestly, and unambiguously, so that there is no "tripping up," the same way that we don't trip up young children during their attempts at showing what they can accomplish. For example, if we want to see how well a little toddler can walk, we don't put obstacles in his way, turn the lights off or create a frightening atmosphere. Instead we say, "Come here to Mommy! Go to Daddy!" We smile, nod, and encourage the small child's crude attempts at making his first wobbly steps. There is safety and security here. "Look how well I can walk," he says. "Look at me!" And notice the encouragement that comes with his imperfect attempts. What praise! What celebration! What approval!

At school, however, this attitude seems to change. Where is the celebration, the approval and praise? Why is there such a different attitude taken by the examiners? It isn't as though all teachers hold this view. I overheard a grade one teacher wonder aloud about the negative attitude that

many people hold towards testing. She wondered, if test taking were always positive, wouldn't assessment be looked forward to--like a birthday party? If every test taken were a celebration of progress and accomplishments, wouldn't children beg for tests (or evaluations) like birthday parties? She asked, when do tests start being uncomfortable for children and why?

It does seem that at school most often the goal is to see how the test can sort the high-achieving students from the low-achieving students, or in Adams' (1980) words, "to separate the wheat from the chaff" (p. 19). In the testing paradigm, this is called "test discrimination." A well-designed test will discriminate high from low-achieving students by using plausible alternatives to multiple-choice questions. This attitude displayed here is a very different one from the way the parents of the little boy view his walking "test"; where the criteria were clearly understood, and where the test was free of obstacles. Perhaps testing as we understand it needs to be re-looked at after all.

Evaluation is a term related to test: evaluate; to judge or determine the significance, worth, or quality of; assess. Similarly, "assess"; to sit by; asseoir: an appraisal or evaluation as of merit as in a critical assessment of the composer's work (Oxford English Dictionary, 1933). I wonder if "assessment" is more appropriate if one is truly making a critical assessment of what one knows of those involved in the evaluation? A good test will evaluate what we value and hence we should value what we evaluate. If we value what we evaluate then we can be sure not to evaluate something that is value-less or trivial!

I am interchanging the terms "evaluate," "assessment," and "test" because they have similar descriptors. (Tannys, a student in the investigation, wishes she were "assessed" as the term is originally defined: "Sometimes I wish that the teacher would just sit down and talk with me [emphasis added] to see what I have learned. An oral test gives you more control to demonstrate what you know.")

Searching Idiomatic Phrases

The students' comments and anecdotes indicate that a test can make a significant impact on their lives. Is testing a new phenomenon then? How much usage has the term "test" had throughout the ages? To understand a test's significance and meaning better, we can also search for idiomatic phrases that refer to "test"--and there are many. Idiomatic phrases are actually born out of lived experience (van Manen, 1990, p. 60). For example, the expression "she was put to the test" can provide more understanding of the nature of a testing experience than the word "test" itself. Other "test" phrases that might help us understand the meaning of "test" are these: "testing time," "test your mettle," "test wise," "a test of strength," "high-stakes test," "a test of patience," "test the waters," "the acid test," "the taste test," and "stand the test of time."

These phrases speak of tests as tests of stress--how much stress can the rope take before it breaks? What are its strengths and weaknesses? When analyzing students' work, all too often we look for the breaking point, or the weakness, instead of searching for the strengths. Can we not focus on strengths like Socrates? Why does this focus now elude us? Why can't this be

a positive experience or focus? What is it about the art of testing constructing and administering that allows testing to be an empowering experience for the student, an experience that builds self-esteem, providing pride in one's accomplishments, and a satisfaction that one is viewed fairly? These students talk about the positive experience of test taking. Gerald expresses it this way:

> Actually I like tests. I get really up for them. I can even feel it in my body--my arms. They feel tense--a good tension though. I can't wait to get into the test. I love the challenge. I do really well on tests--I ace them.

As Gerald spoke, his arms were actually flexing. He moved agitatedly in his chair and appeared to get "pumped up" as it is expressed in athletic events. He enjoyed the telling of the experience. It seemed to be a memorable feeling.

Similarly for Curtis:

"When I've done good on a test, I just feel, well, great. It's a warm feeling. I feel smart. High. I've surprised myself with what I know, even. I dunno--it's weird."

And then there are students like Deana:

> Tests? Oh I love tests. I always do well on a test. I learned how to do that in elementary school. I love the challenge of second guessing the teacher and seeing how close I've come to guessing what's on the test. That's the challenge for me. After awhile, I became more interested in how good I was at second guessing and studying the right material rather than studying to learn. It was just a game to me, and one I got to be pretty good at. [emphasis added]

Observations of Students Taking Tests

Wherever I have watched students taking tests, whether in my capacity as a test development specialist and as an educator, I have been intrigued when I've observed students taking tests. An energy that is normally not in the classroom invades the room. It's a different energy from "end-of-year" energy, Christmas energy, prom-night energy. It is energy laced with tension, uncertainty, hopelessness, and yet spiritedness. Students getting themselves "up for the game." And is it a game as Deana suggests? Perhaps test taking is a game of sorts, played by the test makers and test takers. Is it a fair game--fair play? Unfortunately from what students say about taking a test it's not always fair because students have to play by the teacher's rules, rules which are not to be questioned. I believe that we can and should learn from these lived experiences how to deal with testing more appropriately.

Phenomenological Literature

Educators should be apprised of the focus in testing in order to alleviate the stresses and pressure that are exerted upon the test takers. The student should be at the forefront when we thoughtfully prepare and administer a fair test. In other words, we must be mindful of the "Other." This thoughtful test construction and administration, as Gadamer (1989) illustrates, is essentially an art:

> To conduct a conversation means to allow oneself to be conducted by the subject matter to which the partners in the dialogue are oriented. It requires that one does not try to argue the other person down but that he really considers the weight of the other's opinion. Hence it is an art of testing. But the art of testing is the art of questioning. For we have seen that to question means to lay open, to place in the open. . . . . Dialectic consists not in trying to discover the weakness of what is said, but in bringing out its real strength. (p. 367)

Why do we hesitate to acknowledge students' strengths? Why must we focus on detecting the weakness? Gadamer sees no need for mysteries here. Apprise the students of what is going to be on the test, so that they can show what they know and can do, so that they can demonstrate their strengths. But again, why do we more often investigate the weakness of students rather than re-search and highlight their strengths? Perhaps we should re-examine and question our purpose in and methods of testing as van Manen does:

> We test the strength of a rope, the power of will, the firmness of a conviction, the validity of a view, et cetera--we do NOT test the weakness of the rope, the lack of willpower, the softness of a conviction, the wrongness of a view. Why then do so many students feel that school tests do test their failing, shortcomings, weakness? Or do they? How do tests bring out the real strength in each child, rather than sort the strong ones from the weak ones? (M. van Manen, personal communication, December, 1991).

CHAPTER V

Thematic Analysis

Phenomenological themes are structures of experience (Valle & King, 1978; van Manen, 1990). Through reading, reflecting, and writing I attempted to uncover the themes emerging from the students' testing experience. Unlike themes in other kinds of investigations, themes in this phenomenological research are not objects or generalizations. As van Manen states, they are more like knots in the webs of our experiences. This is how I experienced themes, too. The experiences seemed to hang together by themes as a web is hung together by knots. By using various ways to isolate thematic statements, I uncovered themes that were grouped into the existential themes, lived human relation (relationality, or sociality), lived body (corporeality), lived space, (spatiality), and lived time (temporality). I then used these existential themes as headings for the students' texts.

Within the existential themes I organized the students' stories and my interpretations around the time periods of past, present, and future, for example, before the test, during the test, and after the test. These three elements of time, past, present, and future are really structured moments of an original synthesis (Sartre, 1957). The original synthesis is separated into the three elements for the purpose of conveying the students' experiences in an organized fashion.

While working with themes I centered on determining the essential quality of a theme. In other words, I asked myself, what are the qualities that make a phenomenon what it is, and without which the phenomenon could not be what it is? (van Manen, 1990). This helped me focus on the important themes without allowing the less important themes cloud my vision.

After I did a thematic analysis of the narratives I discovered that the analysis illuminated isolated statements about the way testing is executed in the classroom, and how this is experienced by the student. For example, students need to have questions clarified when they don't understand them. Students don't understand why teachers act differently in a testing situation. For example, when writing their tests, students are surprised by their teachers who act normal and friendly in the classroom, but at the writing centre they take on a different, authoritative persona, and are cold and machine-like to their students. I also found that students worry about getting a poor test mark even before the test takes place, and that test-taking is "scary." Finally, I found that tests can influence your moods and self-confidence, and that they cause anxiety.

Phil (Grade 10):

"Exams and tests are traumatic at best."

Patricia:

"At the moment we seem to be working merely for the sake of examinations, whereas we should work to satisfy our curiosities" (Blishen, 1969, p. 115).

M. (boy, age 17):

"An examination should be a challenge and something to be enjoyed--not a high-pressure release from a cramming session from the night before" (Blishen, 1969, p. 115).

Angela, age 13:

> *I would not have exams because even though we are told that there is nothing to worry about we still worry and when the results are given out we either get upset or conceited. Exams are a waste of time both to the staff and the pupils. (Blishen, 1969, p 118)*

Janet, age 16:

> *A teacher can be very rude and cruel to a child, but any objection on his part is treated as impertinence. Education is a search after the truth, and to find the truth one must be humble. This is impossible if teachers are too proud to admit when they are wrong. (Blishen, 1969, p. 134)*

To illustrate the students' experience of taking a test to the reader, I organized the emerging themes into existentials of relationality, corporeality, spatiality, and temporality. While they can be differentiated, they really can not be separated, but I have in the interpretation separated them so that the reader can focus on each of them specifically. Intertwined within these I have organized the stories into time frames: before the test, during the test, and after the test. Naturally there is some overlap, but the main categories are relatively clear. For some students the period before the test is the most significant, while for others, it is the time during the test, and, or, after the test. The first existential theme that I have addressed is relationality. Relationality is understood as how people maintain a relationship within the interpersonal relationship that they share (van Manen, 1990).

I. Relationality

The relationships among teachers, students, and parents often change at test times. Students, in describing their experience of taking a test, write how they view themselves, their peers, their teachers and even their parents differently, depending on their particular test experience. The following students' stories give some insight into how they experience relationality when they take a test. I have arranged these under four sub-headings, the first being "Tests Can Affect a Student's Concept of Self," followed by "Tests Can Affect Student Behavior and Relationships with Peers," "Tests Can Affect the Student's Relationship With the Teacher," and "Tests Can Affect the Student's Relationship With Parents."

Tests Can Affect a Student's Concept of Self

The first group of stories shows how students feel about themselves when they have had satisfactory and unsatisfactory test experiences. I have arranged them into topics, the first being "Student Unable to Demonstrate Knowledge and Understanding," followed by "Student Fears Test Result,"

"Student Fears Test Result Will Label 'Smart' or 'Dumb,'" "The Test Seen As A Mystery," "Not Knowing How Student Achieved on The Test," and "An Unexpected Grade."

Students' Stories

Student Unable to Demonstrate Knowledge and Understanding

Saphire, a Grade 11 student, writes:

> I've been preparing for this Science test for weeks, and I've read the whole text, I've listened in class well, and I think that I should do very well on this Science exam. I couldn't believe that the Science semester was already over! Science was my favorite subject. I'm almost happy to write this exam; it will be so easy!
> Finally the day has come. I'm waiting for my friend to come so we can go over it one more time. I'm nervous now. I'm not so sure on this test now. Tests are usually harder than I think they are.
> Well everyone is lined up at the doors and I'm feeling dizzy being surrounded by all this noise and all these people. The doors to the gym fly open, and everyone pours in. I find my seat and we say the "Our Father."
> It's time to start. I look for the clock for the time. My vision is blurred--I can't see that far, then I look down. "Come on, focus, focus!"
> I read the first question. "O.K.--I know this one. Wait! These multiple-choice answers weren't anything of what I thought!" I try the second. I can't concentrate. That first one threw me off. "Help!" I scream in my mind. "Why can't I do this? I should be good at it--it's my favorite subject!"
> I look around. Everyone is pages away. I try again and think hard on the question. It's going better now.
> The bell rings loud. All the people who are finished leave. I stay seated along with a few others. "Where did the time go?"
> Well the second hour passes and I finish with uncertainty. I think to myself, "That test wasn't really hard. I could have done it no problem--if I had control." Exams aren't fair. I'm a good student, but this mark will just say,
> "I'm stupid. . . ."

Saphire, the test taker, reveals how hard she has worked for her science test. She's been so thorough in leaving no stone unturned that she's actually looking forward to writing her test. Saphire goes by the widely-held assumption that by putting in the effort and time up front as she has done, she will be justly rewarded and all will end well. But this story does not end that way. And what is even more intriguing, Saphire already suspects that her hard work will not necessarily guarantee a high grade:

"I'm nervous now. I'm not so sure on this test now."

Where or when have her high expectations been dashed before? The exuberance in her opening paragraph is now contrasted with uncertainty. She

has a nagging feeling that she is going to be short-changed on the test. But she is powerless to do anything about it.

Saphire feels a lack of control and powerlessness again through foreshadowing when "the gym doors fly open, and everyone pours in"--like going over Niagara Falls in a barrel, fish flushed down the sewer, soldiers forging on to battle at Gallipoli--there's no turning back--only doom lies ahead.

Saphire was surprised that she did not do well on the test, although she does say that tests are usually harder than she thinks they will be. But for this one she prepared well so it might be different this time. The test surprises her and she panics, losing her concentration and her ability to do her best work. She believes that her test mark will label her incorrectly.

As caring teachers, could we make the story have a different ending--one that would show Saphire satisfied with her demonstration of her knowledge and understandings? It is unlikely that a teacher's intent would be to give inaccurate grades. Is it possible to allow the student to speak, and work a compromise to allow her to exhibit her knowledge and understanding?

Students Fear Test Result Will Label "Smart" or "Dumb"

Some students worry about how they will be viewed as Paul describes before he takes the test:

> When I sat in the desk in Mr. Wilson's room I felt like I was being categorized into groups either dumb or smart. All I could think about when Mr. Wilson wrote the math questions on the board was what group I would be in.

Paul is afraid that the test will expose publicly his ability as a math student. A caring teacher may need to diagnose strengths and weaknesses and it is difficult for students to view their weaknesses. A thoughtful teacher will look at these weaknesses in a positive sense and say, "now we know where to start and what goals to set. We have to find a starting point, find out what you do and don't understand and plan instruction from there." Students--and teachers--need to know that everyone has strengths and weaknesses, and this is no shame. Paris et al. (1991) agree that error making in a positive environment is seen as informative, not debilitating, and further, that it can be the inspiration for the adoption of new and more effective learning strategies. Could we not focus more strongly on celebrating the fact that these weaknesses have been identified so that now they can be worked upon, turning them into strengths?

Lisa has a similar experience in class as Paul:

> As I sat in Mr. Wilson's class staring at the math test in front of me it feels like I just want to get up and leave.
> "All the numbers on the page look weird! Nothing makes sense. I see the numbers but I don't know where to start! I know I know all this, but nothing's coming to me," I cried out to myself.
> I feel disappointed. I feel like I just let myself down. I don't know why I can't start but I feel distracted. I look around for a way out. Knowing

that there isn't one I begin to feel annoyed. I just can't do it! I start to feel really stupid and look down on myself. Why??
I can't even begin to explain the feeling in my gut. Now my head starts pounding. HEADACHE! Finally I start on number one. Can't do it. Two, three four. Can't do them either. Now I have to go to the bathroom. Why? I don't know. I just went. Okay, I look at the page again. Oh yes, I found a question I know I can do. I start to do the question. Finished. Too bad that's the only one I know.
I look around. Everyone else is writing--why not me? I see a couple of people fooling around so I feel a little better. I start to feel like I'm being categorized. Will I be labeled smart or dumb? What will Mr. Wilson think? What will my parents think?
"Time's up."
I feel awful. I just failed miserably.
It's the worst possible experience.

The belief of rank and order continues to prevail with Lisa. She is worried about her parents' reaction to her failing mark and is disappointed in herself. This makes her a most dissatisfied student to say the least. Again, perhaps if tests were looked upon as tools to help us understand ourselves better, the more students would respond to them without fear and loathing.

The Test Seen As A Mystery

This is Lee La's experience of a test:

I remember the math exam. I think it was a Tuesday, but I can't be sure, anyhow it felt like a Tuesday, sort of dreary and tired, the clouds hung about like wet fuzz. The wind blew coldly and I stood waiting for the gym doors to open. It was sort of like the feeling I got last summer; hanging by a thread in the front of a roller coaster at the top of the first drop; I knew the ride would be scary--half of it in the dark--it would be fast, with a lot of unexpected turns and twists, maybe even a little nauseating, but I was strapped in now and there was no turning back.

Lee La, describes the experience before her tests as one of not knowing what was going to happen. What is it like in the front of a roller coaster at the first drop? Frightening, yet exciting at the same time one would think; experiencing fear of the expected and unexpected. Knowing there are twists and turns but not knowing where those twists and turns will be and what they will be like. Test content is familiar, yet unknown too. The test taker has a general idea what will be on the test, but how is it going to be presented? We can learn from the images students present us when they describe their waiting in a roller coaster at the first drop, when they compare it with waiting in front of the doors to the test room. What is going to be on the test? Does it mean a fast ride to the finish as well at breakneck speed? The test is a mystery to Lee La with "a lot of unexpected turns and twists" just like an unfamiliar country road. Lee La has had experience before in comfortably beginning her test and suddenly finding a surprising turn--not unlike our country road. How do students prepare adequately for the unknown? Being "in

the dark" about the content of the test and expectations is indeed scary for students.

Not Knowing How Well Student Achieved on the Test

Lillian describes her experience after taking her test:

> The worst part was afterward. After writing a test I can usually feel how well I've done--not this time. I was hollow and completely void of such knowledge. I've never felt so helpless and confused. I took off for home immediately, trying to forget the whole thing. This was not to be, and I am still haunted by that day. I can't describe much more--it just isn't there. The whole thing left me slightly numb.

Lillian says she feels helpless and numb after taking her test. Not knowing how she did on the important test makes her retreat to the comfort of her home. The experience was one that she tried to forget immediately. To think how the student feels and to make the test taking experience more comfortable, perhaps teachers could talk about the test after it was written. For some students, this may make it worse, but at least it is no longer a matter of "not knowing." Often when a test is discussed, even when a student has not done well, he or she can see why. Informed students seem a lot happier. When they know why they haven't done well, they do accept the poor grade better and they do seem to accept the situation better. Sometimes discussing the test after it is written is not possible because students often leave the test room; and some just do not want to discuss it. A thoughtful gesture might be to make oneself available for those who do want to discuss the test.

An Unexpected Grade

Wes had a different experience. He thought he knew the material on the test. The test this time did not surprise him--his mark did.

> Three weeks ago I wrote my math final exam. I felt that I knew most of the material when I was writing but when it came time for report cards I had failed the math class. I was disappointed in myself and was looking for a reason to blame my teacher for my low mark. Now, however, I find myself sitting back in the same math class as though I could not find a reason for my failed math class [course].

Like many students, Wes was disappointed in his test results because he thought that he knew more than what his report card indicated. How could a teacher and student avoid this occurrence of the surprisingly low mark on the report card? Possibly an honest and caring relationship with the student would not allow this miscommunication to occur in the first place. Good communication between teacher and student allows students to know exactly where they stand and what they need to do about getting good marks.

Like Wes, Rosalyn was deeply disappointed in the test, but for her it was not the mark so much, as the fact she didn't feel the test showed what she really knew:

> Following the test I was relieved but felt a deep sense of failure and disgust at not achieving my greatest potential. I was very sad and depressed even though I was wrapping up after the test. Once I walked out of the classroom it was almost like I could breathe again. While writing this test and experiencing all these negative emotions, feelings, and moods I felt very claustrophobic. Upon leaving the exam I was glad it was over--a great load had been lifted off my shoulders.

Many students do not want to be a disappointment to their teachers, themselves, or their parents, but often tests do show the student in a poor light. This could be legitimate if the student has not studied or attempted to learn the material. It may be worse for a student who has studied but after all that hard work, cannot show off his or her efforts. Students who are afforded the opportunity to take multiple tests of varying kinds can have a better chance of showing their strengths and weaknesses. Having a fair chance to demonstrate their knowledge and understanding even with poor results, seems easier to accept than not having a chance at all.

Some students, on the other hand, experienced feelings of pride in, and satisfaction with themselves because their diligence paid off.
Marie writes:

> I just couldn't believe it. I knew the answers to these questions. I finished up the last few questions and handed the test in. I felt so good about it. It was over and I was pretty sure I passed. I was proud of myself for studying. <u>It had paid off this time!</u>

We can be thoughtful and learn from students' stories with happy endings too. Marie is an example of a student who feels very satisfied with her efforts. It is interesting, nevertheless, that stories like these were not very common. When students are given the opportunity to show their strengths, their attitude toward school improves. Marie feels that the test was very fair for <u>her</u>. What she studied so hard for was actually on the test. Her attitude toward the next test will be better and she will be even more highly motivated by her recent success. Success creates success as we know, and this is an example of that.

Laura, also through experiencing success, has learned a lesson in good study habits: "I've learned from this experience that studying at least once a week in advance pays off. Cramming is not worth it."

Laura is learning first hand that steady hard work does pay off. Fortunately she had a fair test which allowed her to do that. Fair tests built her confidence and faith in instruction and assessment. This in turn becomes a motivating factor for higher achievement; students know that work up front will be justly rewarded.

Many of these students suffered disappointments, surprises, frustrations, and fears during their test taking experiences. With some thoughtfulness many of these unfavorable experiences could be avoided. Rather than Lisa's comment, "It's the worst possible experience," a story about a test experience could have quite a different ending.

Tests Can Affect Student Behavior and Relationships With Peers

While students have mixed emotions about their feelings of self-worth and ability, they also experience different relationships with their peers, particularly of a competitive nature. Again the students' stories are arranged under topics, beginning with "Competition With Peers," and followed by "Hiding Feelings About The Test From Others."

"I don't want anyone to know how I really feel about taking the test or how I think I did on it."

"I am not going to allow my friends to know what I thought of the test and let them know I thought the test was easy."

"Some are wicked smart and you want to beat the crap out of them."

"Everyone studied hard, but they say they didn't study much at all."

On that day of the test it seems like every student in that classroom is competing against each other for the highest mark so he/she gets some form of superiority over the other, yet the others will feel somewhat discouraged.

"No matter what, I don't want anyone to have the advantage over me."

Students' Stories

Competition With Peers

Bernice appears to be more concerned about getting her paper first than finding out if the test is difficult or easy:

> I have no thought processes about general or specific information on the test but I have a need to get to the paper quickly and an anxious feeling as classmates receive their exam before I do. I don't want them to have an advantage.

Sometimes tests are used for "rank and file" purposes which is required at times, but when they are always used for that purpose, students may begin to respond like Bernice:

"Every test is a competition rather than a test to find out strengths and weaknesses."

Earle, a University student, recalls the competition in his Social Studies 30 exam.

> Social Studies 30 was far and away the most interesting class I took in high school. As I prepared for my diploma final exam this thought continued through my mind. My normal anxieties were absent and the only feeling I felt was competition. My friend and I made a bet who would get a better grade on the exam. We studied together, but I knew that I would have to study by myself as well if I wanted to beat him. The fears and the anxieties of what I would get on this exam were non-existent--except for the desire to beat my friend. I knew wholeheartedly that I would get a good grade on the test. I had received excellent grades in Social Studies 30 the semester before and as I took practice exams my confidence started to rise, for I knew the material backward and forward. All that remained was to beat my friend. The goals and objectives of the schooling experience, to do well, to get a good grade, and be able to go to university, were thrown out of the window; I just wanted to beat my friend. This was a new experience for me. My normal reaction to any test was worry and fear--even though I usually did very well on exams. For this test, however, there was no worry and no fear. I had studied so hard in my desire to beat my friend that the material was second nature.
>
> As the date of the exam came closer we both realized that our bet rested on one part of the exam--the essay. We both knew, and knew for sure, that we would each get 100% on the multiple-choice section of the test. This meant that whoever wrote the stronger and more convincing essay would win the bet.
>
> This brings me to the most vivid personal feeling I had during this experience. When the test paper was finally placed in front of me I had an overwhelming, almost stifling, feeling of impatience. I could not understand why they bothered with the ridiculous multiple-choice section of the test and I wanted it over and done with so I could go on to the part of the exam that actually meant something. As I wrote the multiple-choice section I was tapping my foot subconsciously on the floor. At times it was so loud that the teacher had to stop me. This was my impatience showing through. Once this section was complete I was able to calm down and begin thinking in a manner conducive to getting things done.

Earle has learned his material well it seems, motivated by the competition between him and his friend. Learning the material for other reasons might satisfy educators more, but other reasons do not seem to satisfy some students. Earle in his desire to beat his friend is also frustrated that for him, multiple-choice questions do not allow him to demonstrate his understanding and opportunity to get an even higher grade, as much as an essay can.

Students like Beffy have different experiences with their peers.

> Finally the teacher gave back the test and told us the class average: 57%. I looked at my test: 42%. Everyone asked me what I got so I told them. They thanked me and praised me. I asked them, "Why are you thanking me?"
> They said, "You pulled the class average down far enough that we all beat it."
> Then I asked them what they got and they had a range from 57% to 59%.
> So I guess that I was a hero.

I am not sure that deep down that Beffy felt like a "hero." The final mark in that class was viewed as more important than student progress or achievement. Pedagogically, we can use this example as one to remind us that other students can be unkind to their peers and use marks to make a student feel inadequate. Apple (1979) holds that schools effectively teach students to think as competitive individuals, to hide one's real feelings, or to experience joy at someone else's failure, and so forth. We could also wonder why the emphasis was on a class average which may not tell very much about student learning anyway. A class average depends on numerous factors and if a student's motivation is to beat the class average rather than improve real learning, we may be doing an injustice to the students. A feeling of belonging probably is not very strong for Beffy in her class, either. Not feeling part of a group more than likely tends not to encourage maximum performance. Berger in Perrone (1991) agrees:

> Some critics of giving formal letter grades contend that although letter grades are motivating to "A" students, who get all the positive reinforcement, grades persuade "C" or "D" students that their ability is small and it's a waste of time to try too hard. I would go further: I think grades are destructive even for "A" students. In these students, an emphasis on letter grades encourages a narrow-minded pursuit of conservative and proven strategies to please . . . .Finally, giving grades to the class, particularly on the "fair" system of a curve, gives an unequivocal message, and in my view, an insane one, that the worse your classmates do, the better for you. (pp. 34-35)

Students such as Anne have quite a different problem than Beffy does:

> The hard part about testing for me is dealing with students who can't deal with my marks. (Under 90% isn't good enough which means that if I ever slip up I never hear the end of it.) I also get hassled if my marks are high. I get compared to other kids which isn't fair and teachers get some strange ideas, too. For many, it's a personal conquest if I don't do as well as usual on one of their tests. But probably the worst of all is the expectations I have for myself. I take a bad mark very hard (I only cried once; the teacher said I had 70% as a joke and I probably overreacted quite a bit.) I hate tests, but not because of the tests

themselves. I hate being compared to others and to myself. And that's what tests do for me.

Anne seems to put pressure on herself as well as having to cope with the pressure of high expectations from others. Again, the grades seem to speak louder than real accomplishment in learning and it seems that when the focus is on the grade, other things that some educators and students hold important are lost.

Hiding Feelings About the Test From Others

Tests affect student behavior. Students hide their real feelings about the impact the test has on them. Pat and Tonto write in a similar vein about how they act in front of their friends before taking a test.

Pat:

"We are entering the gym to do the exam. I joke with my friends, 'This test will be cake!' And although it doesn't show--I hope, I am nervous inside."

Tonto:

"The tense feeling for the last hour that I have felt that seems to make my pulse race but at the same time acting like it doesn't matter."

Pat and Tonto have a need to show that the test does not mean much to them or that it is somewhat insignificant in their lives. The way they act has some relevance to us as teachers because their stories might remind us that tests do mean a lot to students and that students do not treat them as lightly as they may appear to. In a different sense, Sam (Grade 6) deceives his friends as well:

"I talked to all my friends and asked them how much they studied. Well of course they all lied and said they didn't, or had just studied a little."

Columbo writes:

> I feel totally satisfied by the test I have just finished. I feel good all day as I say to myself, "Wow, that sure was a breeze!" While I hear from everyone else, "Gee, that was a killer!" as I agree with a smirk.

It seems that students are not honest with each other when they talk about how well they did on the test or how they felt about it. Sam knows that his friends worked hard for the test and the resulting high marks that they will achieve will probably have resulted because of hard work rather than because of raw talent. Students believe that the test mark is a true reflection of their ability. This is a reminder to teachers perhaps that students see their test mark as a visible and valid sign of their intelligence and achievement.

Paco, in his anger about the test, writes:

> I'm reading these damn questions and I start to just look at them and not read them. I read them three or four times and it sounds like the same shit--"In 1793 some French fag led a revolution, or NATO stands

for this . . . ." The only thing you want to do is finish the test and get the hell outta there and tell people how easy it was.

Johnnie (Grade 9):

> My friends write down the date and subject (of the test) if their life depends on it. As soon as the teacher says "test" or "quiz," all my friends pull out their shiny leather or brightly decorated books and mark down the subject, and even what you have to study. I usually end up forgetting the test and being heckled that I'm going to fail. . . . Once I'm in the classroom I just pick up my pen and write. Many other kids are all excited and scared about a simple page of questions. Even the boys who like to mouth off the teacher, and say they wouldn't care less about how they did on the test are always there first to ask what percentage of their mark this is worth, or how much time they have. . . Many of the students study every night and have an 80 average and start screaming and worrying themselves sick if they get below 70.

Tests motivate students to learn, but some students become very weary and cynical of the threat of tests. Johnnie refuses to comply with the norm by not taking the teacher nor the test seriously.

Whether the test was easy for students or difficult, it seems that many do not want others to know how they really felt about it. Pedagogically this might make us wonder why students are not truthful, or why there is deception. For all these students there seems to be an over-riding sense of competition among them, and tests do motivate students to study to pass the test. Is this a positive or negative reason? It certainly seems to motivate students to study and learn the course content--if that is what we want.

<u>Tests Can Affect the Student's Relationship With the Teacher.</u>

Matt:

"The teachers says, 'Here is what we're studying. Read the pages, answer these questions--the test's in three days.' There is no real interaction and no real concrete interactive understanding of the subject."

The following anecdotes tell about how test taking situations affect student and teacher relations. I have grouped them according to topics, recognizing that they do overlap. The first topic is "Test Schedule," followed by "Bell Curve; or, Not Trusting the Teacher," "Mis-reading the Instructions," "Test Content a Surprise," "Guessing What the Examiner Wants to Hear; or, The Test Within the Test," "Inflexible Examiners," "Unfamiliar Examiner," "Cheating," "Distractions During the Test," "Inappropriate Scheduling of Tests," "Test Administration," "Returning of Grades," and "Weighting of Tests and Tests of Memorization."

Students' Stories

Test Schedule

Beverley writes about her experience just before graduation:

> I sat down to write my Physics 30 unit test. Initially I'm excited. Not for the test. For Grad. Today is the day we have our Graduation Ceremony in our school. Today I will unofficially yet almost officially graduate. But I'm stuck here writing this dumb exam. No, she couldn't postpone it until Monday. She's punishing Andy and me for going to a school track meet by making us write this exam on Grad Day.
> This is a stupid class anyway. It doesn't make sense. It's too hard. She doesn't explain things well. Nothing makes any sense. I'll probably fail. Maybe I should read the questions first. Well, cross this one out and this one. Now which one is the answer? I hate multiple-choice. I always pick the wrong one once I have narrowed it down to two choices.
> I can't stand Mrs. G. Why did she have to make us write this today? This is stupid. I'll probably pick the wrong answer.
> I just looked up at her, and just from looking at this first question I find relief from sneering at her. She has to make this hard, doesn't she? Well, she's ugly anyway. No one likes her. I don't like her, especially since this is Grad Day and she's making us do this exam. Maybe I should stop feeling sorry for myself and finish this exam. That way I can just get out of here and get ready for Grad.
> O.K., I'll just guess for this answer. It looks like it doesn't make sense. It doesn't look right. I'll pick "D." On to the next. Question #2. Again, I have a choice.
> Damn it, Mrs. G., why do you have to do this to me?
> I'll skip that one. Finally the end. OK, now I'll go back and do the ones I missed. I'll count them first, fifteen of them. What? Oh I hate you. I glare at her again. I touch my grad hat. I'm wearing it during this exam. I've got to get out of here. I can't sit still.
> Quickly I go over the questions I have left. I pick answers. Finally I am done. I still hate her. This was a cruel thing to make us do today. She could have let us write it on Monday. Oh well, I'm out of here now. I can't remember. Was it hard? I don't even remember the questions. All I remember is how I glared at her and thought she was really horrible on Grad Day.

Beverley sees this test as a form of punishment. Possibly there was no other time to schedule the test but if that were true, would it help student relations if that were explained to students? At this point, the test is not what Beverley remembers but the seemingly punitive aspect of a test being written on Grad Day, and the subsequent negative perception of the teacher.

Bell Curve or Not Trusting the Teacher

Megan, a university student, writes about her failing an examination:

> With great fear of failing my metabolism examination, especially after failing the mid-term examination, I entered the examination hall where twenty-five students were already sitting and groaning. The fear started because the professor on the very first day of class made this statement: "Three-quarters of the class will fail this course and I have to do a bell curve."
> His words came true. Three-quarters of the class failed the mid-term examination.
> It was my final year at the university and my final semester. As for the professor, it was his last semester teaching before he went on retirement. He told us that he would give us only four questions for the examination which would last three hours. Upon receipt of the examination paper, I was totally surprised to see that each question was as long as a written sheet. The examination contained four sheets. There was only about one spacing between each line. Imagine the length of the question! I told myself,
> "This bastard is trying to kill us. He must be an idiot. What a pain. He is trying to prove that his first statement he said on the first day of class to comes true."
> As I read the questions slowly, and things began to flow back, I had an unusual feeling that I did not know anything. This fear was greatly influenced by failing the mid-term which I thought I did very well. I took a deep breath and looked out. I could see the expression of all the students. Everyone including myself was shaking their heads. I felt like killing the professor.
> I told myself, "Well, I am here--I can do the damn test!"
> I started writing what I knew and suddenly I realized and felt happy that I was able to do the question. I had no time to recheck my work. I wrote continuously until the professor told us to stop.
> After he collected the paper, I told myself he'd better give me a good grade because I felt that I did very well--but the fear was still on until the grades were up.

It seems that from the point of view of the students that this test was unreasonable in length for the time allocated. Further, students felt that they were motivated to learn by trying to "beat the bell" rather than by learning for more pedagogically appropriate reasons.

Mis-reading the Instructions

Sue had a different experience with her teacher in her test writing:

> I took the test (teaching elementary science exam). It was awful. I read and re-read the questions--then answered them the best I could. One week later we got them back--She (the instructor) was telling us about the scores--she had the highest and the lowest scores she'd ever had. I was sure I was the lowest--instead I was the highest! I couldn't believe

it. I now knew the hard work paid off. I started that day preparing for the final test.
Again I worked night and day. The day of the test I went in feeling more confident than before because I had worked harder. I read the questions and suddenly I knew the answers. I started writing and felt very proud. I was glad I had worked so hard.
After the exam, I went to my reading in elementary education class. The instructor said, "reading is very important at all ages. For example, those of you in the science class know you have to read Miss Borman's tests carefully if you want a good score." I thought, "I wonder if I read the test carefully?"
The tests were returned the next week. I had an average score. I lost most of the points on one question. The question ended with the phrase, "Be specific." I had only outlined the answer.
I never really studied hard for a test after that. Why bother if it's all a matter of careful reading and not an acceptance of what you know?

How does Sue feel about Miss Borman now? At first her results may not have been really indicative of her study time, but the second time around when she studied even harder, again the results were not indicative. By misreading a question she was robbed the high marks that she deserved. Could not a sensitive teacher tell Sue of her error? A sensitive teacher would have allowed Sue to show her true colors. A misinterpreted test question is just not valid. It seems odd that in these times of standards and rigor that we educators would readily accept these invalid results.

From my observation, most teachers <u>are</u> sensitive, caring, and encouraging when students take tests. The friendly smile, the pat on the back, and the encouraging words lift students' spirits as they prepare to write. Teachers know that this encouragement helps students do their best; it helps students to be aware that their teacher is "with them" as Gadamer (1989) proposes, as they take their test.

<u>Test Content a Surprise</u>

Tina is another student who thought she was prepared for the test but realized that what she <u>thought</u> was on the test and what really was <u>on</u> the test were two different things. Tina writes:

I was just about to write a stats final exam. I was feeling really confident about the whole situation. I knew my material well and my grade going in was excellent.
The exams were passed out and I waited anxiously. I finally received my copy and again had to wait until everybody received their copy so that we could all start at the same time.
The professor said, "Okay, you may start." I felt as if I were in a race. I read the first question. I didn't know how to do it, so I read the second question. Again I didn't know how to do it. I thought to myself that it will all come to me after a while. I read the third and fourth questions. I couldn't believe it, I didn't know where these questions were coming from! I had no clue how to start them. My heart started beating faster. I

looked around the classroom and everybody had their pencils on the paper writing madly. I got really scared and nervous. My hands began shaking and I dropped my pencil and formula sheet to the floor twice. I looked at the professor and the clock, and felt hatred. How could he ask such difficult questions? Fifteen minutes had gone by and I haven't even started!
I managed to calm myself down a bit and I told myself to relax and take a few breaths. I scanned the rest of the exam for a question I could answer. Yes! I found one. It was a start--but by now there was only half an hour left. I was going to fail the exam. I could break down and cry. I had worked so hard in this class and was saying good-bye to the good mark I had, all because of this exam.

Tina, surprised by the test content, hated her teacher at the time of writing the test. She, too, had worked hard in this course but was now not going to be able to demonstrate her knowledge and understanding. It seemed that she did not have the right knowledge for that particular test.

Not knowing what form the test is going to take and what content will be, and in what detail responses are expected, are major causes of stress for students. Students feel that memorizing trivia and the vaguest or obscure of material has little, if any, merit.

Are students perplexed about the intentions of the examiner? The students might wonder why is the examiner asking such trivial questions and for what purpose?

Guessing What the Examiner Wants to Hear; or The Test within The Test

Students' accounts of test taking tell me they spend considerable time second-guessing what will be on the test, and once into the test, guessing what response the examiner wants to the test questions. Up until test time students also have to prepare for what one student calls the "wild card" as a further test of second-guessing. Charlie, a university student, writes:

Of equal importance in writing a test is not only knowing content material, but also my peace of mind. I take time to calm myself, relax, possibly to meditate. I reinforce the concept of self by reminding myself that I have done well to this point and why would I blow this test? The answer of course is the wild card (professor). The question remains, will the professor include in the exam any material which was vaguely or obscurely raised in class?

Virgil, too, has difficulty in second-guessing what the professor really wants. He writes:

After receiving the test, panic and anxiety enter.
"What if he gave us stuff he didn't tell us would be on the test?"
I came to an area on the test which asked to choose three out of ten statements and explain them. Another dilemma. I need to choose three that I can write a lot on, but I also have to make absolutely sure that it is what they mean. Maybe I should choose another one? Would the

> professor be impressed if I chose this explanation over the other one? Did I write enough about this statement?
> Next set of questions. Define and explain. For this one word there are two answers to the explanation part. I'm sure of one of the explanations and kind of sure about the second one. But I'm still not sure about the second one. But if I write both down I will get more marks. I'm still not sure about the second answer. Now there is a second word that I think has the same meaning as another one. Is this a trick question to throw us off or did I study the wrong definition?

Virgil seems to be expending more energy and effort trying to figure out exactly what the professor wants and will be impressed with than in demonstrating his knowledge and skills. Without adequate guidelines and clear questions, Virgil is sailing perilously in uncharted waters. Knowledge of the material is not being tested here; it is skill in reading the professor's mind. Some students are good at that, often those who have less knowledge on the subject matter than those who do. By putting some thought into setting clear criteria and allotted marks makes it easier for the student to get the best grade he or she can while demonstrating understanding.

But Virgil does not trust the teacher either. He has been caught before by being given "stuff he didn't tell us would be on the test."

Inflexible Examiners

How do teacher/student relationships affect students? What can other relationships do to make students aware of their existence? An English as a Second Language student, Mei Lei, writes of her experience in taking a test in her second language:

> The teacher gave the paper of problem and answer paper for short time [to other students] without any failure. However, I made mistake on answer paper. I needed one more answer paper. I asked teacher to give me one more answer paper, but he rejected. I didn't feel to keep taking the exam. However I had to continue it.

This test seemed to provide little chance for Mei-Lee to demonstrate her strengths. On this occasion she was more likely to demonstrate only her weaknesses. It was most likely a difficult moment for her when she was refused another answer paper, and it was probably difficult for her not to give up.

Unfamiliar Examiner

Often a warm relationship between student and examiner is impossible to create in a short time period, particularly when an unfamiliar examiner is brought in especially for the test as in Candy's case. Candy's testing experience was one of examination performance, one of the most difficult kind because as another student expressed it, "you can't go back and erase your mistakes." Candy writes:

Studying ballet is grueling. I always thought I was in the military, being yelled at, having muscle spasms, being switched with a switching stick, like a jockey would do to a horse. But my senior grade ballet exam was frightening. What this exam included was barre work, ear training, an oral exam, prepared dance, and improvisation.

What bothered me was that we were all like little robots dancing at the time of the music. My hair, pulled tight off of my head always made one feel naked and when we walked in the musty room and you could always sense extreme tension.

I remember standing in first position, shaking, addressing the formal examining by Ms. Whoever. She never smiled at you; she was like a rock. I swore I could've cried. I thought she was so insensitive. Even more, I felt exposed like an art exhibition being criticized. There were only two in the exam and she could see everything. Her eyes scanning every living part of my body. What bothered me was she would look at you, then write. I really hated her for making me feel so inadequate. I hated the bloody smell of the room. Sweaty feet. I hated the skinny look on her face and like all the examiners, they always looked too damn professional. They always had the "I'm going to fail you," look on their face.

The mirrors were covered so you could never see if you were correctly placing your leg in arabesque. All you would do is shake and visualize perfection.

For an hour it was hell, then stepping out of the room I felt relieved because I no longer had to look at the face of the witch who made me so scared for no reason.

Candy was under intense surveillance due to the nature of her test. However, the examiner in her desire to do a thorough examination seemed to forget the student as a person and objectified her by viewing her as a body that had to meet certain performance standards. In doing this, the examiner unwittingly showed insensitivity to the student. It is difficult to perform well under such surveillance as this. Many students like Candy are placed in the perspective of the Other-as-object (Sartre, 1957). Most people have at one time shared his experience, and van Manen (1990) and others have already noted how the body changes when gazed upon. Under the critical gaze the body may turn awkward, the motions appear clumsy. (Sartre, 1956, p. 353). There are many ways that thoughtful examiners avoid the objectification and instead encourage the student to give the best performance possible.

<u>Cheating</u>

N. (Nola): Did you take the CAT test?
Chorus of Grade 3 Students: Yeah!
N.: Tell me about the CAT test"
Student 1.: It was hard--you had to color in dots.
N.: You had to color in dots?
Student 2. Yeah, and--and you had to sit far away--so we won't copy.
Student 3. So we won't cheat and so they don't talk to you.

Perry (Grade 12):

The rows beside me were writing the Math 30 exam. This way no-one could cheat. Each row had two teachers monitoring it, watching our every move. Trust was certainly not in the air.

Perry's comment is quite typical of many students who wrote about their experiences of testing and feeling as though the teacher thought they were cheating. For some, it made a significant difference to their test performance. Robert writes:

> And I always have a feeling that the teacher thinks I'm cheating. I feel like this when I have barely studied. On a test when I am prepared, I feel great, wide awake, open-minded and I can think clearly. . . . But for some reason I still get worried that the teacher thinks I'm cheating.

Jon is also worried that the professor thinks he is cheating:

> Writing my exam in his office sucks. I hate this--in amongst his things. I can't concentrate in these surroundings. And now the racket outside--it must be noon by the sound of the traffic out there. Great, now where was I? It's no good. I'll have to close the door to keep out that damn noise. Shit! I can't close the door--he'll think I'm cheating if I do. And I can't think with that noise either. I even hate to look around in his office in case he spot-checks me and accuses me of cheating. What a pain in the butt this has turned out to be!

Jon was left to write his test in the professor's office and is distracted by these unfamiliar surroundings, particularly because they are the personal surroundings of his professor. Although the professor thought he was being considerate, Jon does not see it that way. An office would be an ideal place to cheat, and because it is, Jon feels that the professor might think he is taking advantage of the situation. If Jon gets a very high mark on the test, some awkward questions may be raised.

Holly is another student who seems too fearful to look up from her work in case she is suspected of cheating:

> It is weird that after writing so many exams I still feel so anxious. I mean either I pass or I don't--it's only one exam. I'm sure the prof knows this doesn't mean I don't know anything. I hate this. I don't want to cheat. I hope they don't think I am--I'm not. I like to look around though. It helps me to relax and work out the crink in my neck.

Teachers who have a trusting relationship with their students most likely do not even address the issue of cheating formally. Through the everyday work students realize that the object behind tests usually is to find

out what the students do and do not know so the teacher can plan instruction. In that case, the whole concept of cheating is a moot point.

Gerri, now a university student, recalls a testing experience she had when she was about seven years old:

> I remember in particular, a grade two spelling test. I remember feeling confident at the beginning because I had worked hard in my spelling book. The teacher read the words and we wrote them down. I was a slow writer and it seemed as though the teacher was reading the words a million miles per hour. I remember panicking because she was onto another word before I could write the prior one. She got further and further ahead of me. I was on about word number four out of ten when she asked the students to hand the tests back. I panicked. I had another student's work on my desk so I started to look at the words to write them down, not because I didn't know how to write them, but because I couldn't remember what they were.
> The teacher saw what I was doing and yelled something like, "What are you doing! Are you cheating?" I tried to explain but the words wouldn't come out.
> I could feel my tears running down my face, but I couldn't do anything but hand her the tests. It was like my jaw was frozen. The eyes of my classmates were all fixed upon me. I felt humiliated. The teacher whom I really liked had destroyed me.
> The last thing I could remember is the teacher making me phone my mother to explain what had happened. I lied and said she wasn't home because I was too scared to tell her.

It is interesting how the memory of humiliation lasts. Was the spelling that important to make Gerri cry? Is <u>any</u> one test that important to cause humiliation? Did not Gerri feel comfortable enough in her relationship with the teacher to raise her hand and explain that the teacher was reading the words out too quickly? Could the teacher not notice in one glance who was falling behind and who was keeping up? Are teachers not aware of the special needs in the classroom?

Louisa is another student who had to deal with the issue of cheating while writing her test:

> The test itself wasn't bad at all. Once I was able to tune everyone out, the answers came easily and effectively to me.
> But then the boy behind me started shaking his leg, which moved his desk and bumped mine. I felt helpless because if I had said something I'd get accused of cheating. Frustration began to fill my thoughts, and it was as if the test was disappearing before my very eyes.
> Teary-eyed, I looked at my teacher, and he read my frustration and came over to stop the pain in the butt behind me.

A sensitive teacher can save a lot of grief for students. We could imagine what it would have been like for Louisa if such a teacher were not available in the test room.

Sandy, a Grade 11 student, seemed to have anguished the most about whether to cheat or not, and whether the teacher thought he was cheating anyway:

> Should I cheat? No, I might get caught--but I didn't study very much. NO! I won't cheat.
> FIVE MINUTES BEFORE THE FINAL EXAM
> OK Here I am sitting in the far back of the room not knowing what will be on the test, if I studied what's on it, how long it is, or if the teacher thinks that I am cheating. I can't mess this up. I can't mess this up. If I mess this up I will fail and my parents will kill me. I can't believe that these two hours will count for 40% of my grade. I should have studied more. Why didn't I study more? What if he thinks I'm cheating?
> DURING THE TEST
> Dear Lord let me pass. Dear Lord let me pass. HOLY SHIT! The test is 30 pages long! I'm going to fail. I can't fail! Dear Lord let me pass. I can't stop sweating. I should have cheated. I know that--what is the answer? Does he think that I'm cheating? I'm not cheating, but does he think I am? I'm going to fail. I'll have to do this course again. How much time is left to do it? I have enough time. Am I going too fast? Does he think I'm cheating? I'm going to fail. I wonder what I need to get on this test to pass the course? Lord please let me pass.
> AFTER THE TEST
> I failed. I know I failed. I'm dead. My parents are going to kill me. Did I pass? How did I do?
> DEAR LORD PLEASE HELP ME PASS!

Sandy is pressured to cheat because the test is worth 40% of his final grade and his preparation has been inadequate. He is also concerned about how his parents will react when they see that he has not done well. This is added pressure for him to cheat. To make matters worse he is suffering the guilt feelings of thinking of cheating even when he does not carry out the plan. Because of his lack of preparation and fleeting ideas of cheating to pass this important exam, Sandy experiences a very awkward dilemma.

Pedagogically, how do we deal with students who do not prepare for a test? The bigger question might be to ask why do they not prepare in the first place? What is it that has caused students not prepare for a test? Have they been in too many situations where they have been given many insignificant tests and learned to not treat them seriously? Have students been given tests where they have been able to bluff their way through because the test was poorly constructed? Have the standards for passing the test been set too low too many times and students take a chance on that one more time? Is the subject matter uninteresting, not meaningful, relevant, or engaging, so that students leave the studying exercise until the last possible minute and then find there is no last minute left? Some of these questions may be the answer to the predicament that students find themselves in. What we could think about now is how to circumvent this kind of situation so that students do not resort to cheating or arrive at a test unprepared.

Distractions During the Test

Students suggest that some teachers in their quest to administer tests do seem to demonstrate lack of sensitivity and tact. Like Candy in her ballet exam, Rob, Jim, and Suzette find the required surveillance distracting as they go about attempting to write their test. Rob writes:

> Writing any final exam for any class sucks. Right when you get comfortable in doing the test it seems to be the teacher's duty to come and watch over your shoulder. Yeh! Like that makes you comfortable. You start to sweat and your hands get clammy. And everybody in the gym seems to be staring at you. Your mind then goes blank for a while until they leave. But in becoming comfortable again it takes a little time because the teacher has rudely interrupted you.

Jim:

"The sound of the teacher's pacing the rows and interfering with my thought processes are still very real."

Suzette:

> As I was writing the exam, it was hard to concentrate because there were so many interruptions. The teachers were walking around the gym with their shoes clanging against the floor, the recess bell ringing every fifty-five minutes, and people kept getting up to go to the bathroom, or get more paper.

Most likely students are particularly sensitive during test times and that the smallest things annoy them. Teachers try to be unobtrusive as much as possible but often it is not interpreted that way by the students. In a sense, teachers cannot win.

Julie on the other hand, found the act that was meant to be thoughtful to be irritating:

> I'm finding the test harder than I thought. It is now 9:00 am of the worst day of my life. Everything is going wrong. I can't get focused. I am having trouble concentrating. And my dumb teacher is walking around the room asking people if they want more candies! I really don't like candy.

Inappropriate Scheduling of Tests

Sometimes because of inflexible schedules and timetables, students take the brunt of this administrative insensitivity. Laura reports:

> I wish that a whole bunch of tests was not always scheduled at once. It seems like that in every subject the teachers always seem to schedule their tests on the same day. Tomorrow I have my Social Studies 10 final as well as my Science 10 final.

James agrees with Laura about inconsiderate test scheduling:

> It's difficult to tell if teachers plan the date of tests together, for if not, they should. Tests seem to come in small bunches and a student may be burdened with up to five tests to study for on one day (don't laugh, it's happened!). I just wish teachers would start to realize or even care that students have other classes. A little consideration is all that is needed.

Test Administration

Jim writes about his test experience before the test even began:

> I waited anxiously outside the gym doors feeling like I was going to be sick. Everyone was talking and feeling the stress. Just before the bell rang everyone started to line up--no, push their way closest to one of the doors. One minute before we were to go in, the rows, subjects, and grade levels were placed. Everyone was trying to peer through the glass to see what exam the teacher was placing where. I will never forget what happened when that bell rang--I felt like I was part of a demolition derby. Never in my life had I experienced so much shoving. People were shoving into doors and walls until they were inside. Once inside, people literally ran to a desk.
> The fear of not finding an exam had built pressure high before writing the exam. The relief of sitting in a desk with a right test paper was immense.

Some students seem to suffer considerable trauma before they begin or even see their tests. The test is such a special event that teachers and administrators set students up in special places to write them. Sometimes these special places such as gyms do not ease the student's anxiety. Jim was worried that there might not even be an exam for him. But it seems that Jim was not alone. Many students on that test day were very anxious about finding their places and tests.

Verna has problems with the administration of tests as well. Before she begins her test, she is already made uncomfortable by the administrative details that have to be dealt with:

> I found the room with difficulty and stood around with the others waiting to be allowed in. Papers were set in specific areas and you were seated according to an ID number. You couldn't sit just anywhere, and the strictest test security was maintained. One hour was taken for filling out various forms, checking picture ID, explaining procedures and so on before we were allowed to open our booklets. Once again this almost seemed to make people more uncomfortable because of the artificiality and long delays.

How could we think about administrative details so that they do not interfere with students who are about to write a test? Although this may seem trivial, this kind of thing means a lot to students who are keyed up for an

important test. Some thought given to this might make students' test taking be more comfortable.

Returning of Grades

Another area that is particularly sensitive to students is the returning of grades. Should teachers read out grades in class? Students like Nancy don't seem to mind if they do: "It doesn't bother me when the teacher reads out the marks because eventually most of the class finds out anyway."

Most students do not seem to agree with Nancy, however. This is what Rookie, a high-achieving student, writes about the returning of grades:

> The test seemed like it took hours! I suffered through it and left the class feeling horrible. The worst of it is that Mr. Wright always likes to use me as an example--like my marks and everything. He always embarrasses me so. When he was ready to call out the marks the next day I was worried because of my unusually low mark.
> I asked him as politely as I could, "Mr. Wright, would you mind if I just look at my mark? I don't want you to call it out in class."
> I hated the thought of him yelling out my mark.
> "No," he snapped--very firmly--just like that. He was determined to yell it out in front of everyone. Why does he love to do that? I hate him!
> Well, he went ahead as he said and called out my mark and looked directly at me as if to say, "See, you can't tell me what to do. I'm the teacher!"
> I have never been so humiliated in my life. It's my business what my mark is. I hate it when teachers do that. Why do they do that? I try my hardest on every test I write and if I think I did bad I don't want the world to know.
> Every time I went into a math test with Wright after that my mind went blank and I couldn't even think. If I wasn't so scared of what he'd do if I fail I think I'd get a better mark.
> Why can't teachers just help a student when they don't do too good instead of making them look like a class clown? I just wish that teachers would respect students' privacy more often.

Even for high-achieving students like Rookie, making grades public can be uncomfortable for them.

Young children, (Grade 3) have had experiences in having grades returned to them as well. This is how the conversation went that I had with a group of six students about the returning of grades:

N.: When you've finished your test, how does the teacher let you know about your grade?
Student 1.: She said, like when it's a spelling test, "when I call out your name tell me what you got"--like 10 out of 10 or whatever you got, and then she puts it in a book.
N.: So everyone can hear what you got?
Chorus: Yeah!

N.: What's it like to have everyone hear your grade?
Chorus: Nervous laughter, giggles.
Student 2: If you get a good mark it's good--like I've got ten out of ten every time--except once.
N.: Well, you must feel good about calling out your mark then?
Student 2: Uh huh!
Student 3: But if you like get a bad mark, it's embarrassing (voice very small and hangs head down--looks up a little and smiles sheepishly). And like when you get ten out of ten it's like, "TEN OUT OF TEN!" (big smile).
Student 4: Yeah--you're very proud to get ten out of ten. And when you get six out of ten you're like that (puts head down).
N.: And when you get six out of ten do you say it very loudly?
Chorus: You usually say it quiet--chuckles--(children say, six out of ten in small voices, looking shameful).

Jay writes how he, like the young children, was required to read out his mark:

> The next class the test was returned to us and we found out our terrible marks. I felt terror when the exam was handed back. I got 13%. The teacher recorded the marks by asking each student to read out their marks. I wondered, "Why can't he write our marks down as he marks the test? Does he do this deliberately to make us feel bad?"
> As it turned out, everybody else in the class blew the test as well. The class requested that we didn't have to show our parents the marks on the test. The teacher allowed us to write a rewrite exam, but we would have to show our parents both exams! The better of the two exams would count.
> The rewrite was even harder than the first test. I managed a pass. Others did a lot better than me though. And he still wanted the test signed! When I showed my parents they wrote him a letter, and so I got in trouble from both sides. I'll never forget that teacher for that--I really think he enjoyed the whole thing.

One can never be sure if the teacher did indeed "enjoy the whole thing" but it is important to think about why students perceive it that way, wrongly or rightly. The stories suggest that students seem to feel that they are quite helpless and oppressed when teachers call out their grades without their permission. It might not even occur to teachers that this is not something that students appreciate, either. They themselves may not have had these uncomfortable experiences when they were students and so they would not think of this being a traumatic event.

Cartoons such as Figure 6 illustrate often deep meaning of life experiences. The student sees the handing back of grades as an act of terrorism.

Figure 6

Cartoon: The Power of Grades

"It's an interesting theory, Fred, but the power to give grades is not terrorism."

Reprinted with permission of Ford Button. All rights reserved.

The student in this cartoon is portrayed as feeling that he is in a helpless situation and the teacher has complete control. According to jan jagodzinski (Pinar & Reynolds, 1992) grades do little, if anything, to enhance relationships, learning, and the learner:

> "Grades" are not lived as plateaus; they become the imprisonment of a letter. This stills the body needlessly. Its life is lost. Educational risk-taking requires that we place the body in a healthy tension. A dichotomous consciousness merely increases anxiety. Desire is perverted so that boundaries are maintained. (p. 161)

Not all parents approve of grading practices either. While some approve of the grading system (usually those whose children bring home "A" report cards) there are others who do not fare so well. For example, Majesky (1993) writes: "To those who cry that grades teach students what is and isn't important, I agree. They certainly taught my daughter that the system believed it was she who was not important" (p. 88).

Weighting of Tests and Tests of Memorization:

Many students take their education seriously. Katy writes about a test she worked hard to do well on.

> If I can only forget the significance of this next hour and a half that it might have on my life maybe I can actually remember something and if I can't, what then? I feel like a person whose whole life is being decided because of a few answers on a test and that's all that matters--not my personality, not my willingness to help others, and care about others; just what I've learned from the past few months and can actually recall today. This seems all so unfair because this information isn't very relevant to my life and I don't remember recall of facts well. I know that others feel differently and that this knowledge and information is important to them and I have to be assessed in competition with them. Shouldn't this be a personal thing? Improvement and all? It's not! I just want this test over with and forgotten and hope I pass. I also hope I never come across this sort of thing including this subject again because of today's test!

Sometimes students feel cheated when they have worked hard for a test only to be given an easy one. Katy is frustrated that she has been given a recall test that is supposed to illuminate what she knows, understands, and can do. Katy knows that there is more to her than her ability to memorize and she feels that the test is not going to reflect the real Katy.

Holly had a similar experience to Katy's:

> My hands were really sweaty and I felt in a daze--too much was going through in my head. I couldn't remember what exam this was for although I had the subject facts running through my head. This really sucked. I hate tests. I know I can't show them what I know I know with writing a test. It's unfair 'cause I know someone is always better, or not so much better than me, but at least can write tests better. It doesn't matter how much or little I study it always turns out the same.

Holly is frustrated in that she can not show all she knows, not because she cannot recall information, but because she is not test wise.

Kelly writes about her memorization test and how it is weighted so heavily:

> The drive was long and my mind was preoccupied with mentally reviewing each of the pieces I had memorized for this event, different ear-training technique, and the fingering of all the scales et cetera. I did

not engage in conversation with my parents but was mesmerized with the fact that a twelve-minute exam would determine if my year of hard work deserves a certification of achievement.

Students like Kelly do not seem to respect or understand "one-shot" tests that consist of recall of material at that particular instant. Bobby's experience is similar to Kelly's:

> I feel so nervous about this stupid test--and why do teachers give them to us anyway? It doesn't prove anything except memory. You may remember it for a day and get 100%, but the next day, forget everything. What a waste of time!

Marg writes:

> I find the most intense part of writing a test is the period right before the test is written. A particular test that sticks out in my mind is one that caused me a tremendous amount of stress. Reasons were not because I was not well-prepared, but because the subject matter was much too large. There was even more stress to add to this abundance of information because the professor of the class was not interested in concepts and ideas of understanding, but rather with the regurgitation of specific details with no real relevance to the grand scheme of things. There was also too much riding on this exam--60% of my final mark. Not only was I stressed out but I was frustrated--I know a lot about this subject area and really enjoyed it; what ticked me off was that I knew I would not be able to express it. Rather I would have to index through all the mindless, temporary sets of facts to think of some irrelevant word from page 63 and what it means. I was feeling so frustrated, so furious and so very uptight. Even after I wrote the exam I was so shaken up. This is not normal for me, as I am usually very relieved and relaxed after an exam. However this particular exam took me for everything I had that day and unfortunately, it is a day I will not forget for a long time.

Students like Hercules and Paco have little patience for tests that to them make little sense.
Hercules writes:

> Not only was this test long with at least two summers of our Drama semester and a 250 word essay on what we liked best, but the freaking questions were so damn general that I was fuming. (There are barely any words for me to express my feelings politely!) I'm serious! If my teacher were to make a freak statement such as "Oh, by the way, my cat Felix just died," we were supposed to know his name, his color and how old he was! That's just an example though. . . . I left the gym feeling rather drained and vowed to give the teacher a piece of my mind. But I later decided it wasn't worth it.

Paco writes:

> I'm writing a Social Studies test and it bites. There seems to be 1000 bloody questions and it seems like the damn test will never end. The test is yammerin about some stupid wars and some gay presidents signing some gay documents.
> Around the middle of the test you look around and think about the stupidest things; like what the hell do people look at when they stare at the ceiling trying to remember a stupid question? Eventually you start to forget how much the test counts for marks and each individual question is crucial to your percentages. I'm reading these damn questions and I start to just look at them and not read them. I read them three or four times and it sounds like the same shit. "In 1793 some French fag led a revolution," or, "NATO stands for this . . . ."The only thing you want to do is finish the test and get the hell outta there and tell people how easy it was.
> The mandatory hour is up and people start to rush out the door. Some are so unprepared they just circled any answer and ran out for a smoke. Some are wicked smart and you wanna beat the crap out of them. . . . Now, the last couple of questions. . . I've guessed . . . . and I try not to think that eventually I'm going to have to write a hundred more tests like this.

Each time I read the last sentence in Paco's story I feel how unfortunate it is that this student has such a depressing outlook on his school life. And what is even more unfortunate is that he has good reason to be, judging from the students' stories about taking tests. Perhaps one of the worst examples of test questions of surprising vagueness is the following, submitted by Neal:

"Explain the subtopics in Chapter 9."

Like most people, students do not like unpleasant surprises. When the test content is a complete surprise, students feel cheated out of showing their understanding. Not knowing the test-marking criteria is as unsettling as the test content surprises. Students are eager to show their best but seem to need guidelines to demonstrate that. In testing situations, it seems that much inflexibility in test construction and administration occurs--more so than in day-to-day schooling, and the test writing is fraught with distractions. Often this is caused by mistrust of students, and the teachers' focus on watching for students who are cheating. The tests themselves are under fire from students, particularly poorly written ones that test low-level knowledge. When students are well prepared for a test, to write a simple test is frustrating for them. Sometimes these kinds of tests are weighted heavily which adds insult to injury. Further, the administration and scheduling of tests seems unthoughtful for students which increases students' tension and anxiety. Finally, as teachers, we could learn something about returning grades to students. It appears to be a more sensitive issue than one would think. Students become impatient when trivia-type tests count for so much of their final mark. A thoughtful teacher might want to be very careful about the assessment that is weighted heavily, especially if the test does not merit it.

Tests Can Affect the Student's Relationship With Parents

Whether students have prepared adequately for a test or not, they worry about the reaction of their parents while they write the test and when they receive their test marks. The students have written stories about this concern and I have arranged their stories by topic, beginning with "Motivated by Parent to Study," "Sorry to Disappoint Parents," "'Disgusted' Parents," "Parental Advice: Avoiding Finals," "Fear of Parents' Reaction and of Having to Repeat the Course."

Tonto:

"The exam was now sitting in front of me. I read over it. I knew nothing! I panicked and this initial fear ran through my body. I am going to get a zero. My mom is going to kill me!"

Terri:

"After the test all I can do is hope that I studied hard enough to pass, or hope that my parents won't find out I failed."

Karen (age 9):

"They're [parents] happy--they're like, 'good job!' If my sister gets on the honor roll and everything my mom gives her money for it."

Jerry (age 10):

"She's (Mom) happy when I do well on a test--sometimes she gives me something--one time she gave me a toy tractor."

Ellen (age 11):

"Once I got and A + and Mom and Dad took me out for dinner."

Matt (age 8):

"Mom and Dad look sad when I don't do good. They don't let me play Nintendo for a while."

Students' Stories

Motivated by Parent to Study

Rebecca-Jane: Grade 7, writes about her experience of tests and parents:

> According to my dad, I was failing math.
> "But," I said, "my average is 67. What's wrong with that?"
> In the past I had gotten 60s and 70s on my tests. They weren't hard. I just couldn't apply myself in the right way. I knew the math, I just didn't get good marks on the test. I never really studied before because I never needed to. But, I really wanted to prove to my dad that I could get above a 65% on my test. So I got home from school and went straight to my room. But this time I didn't turn on the radio. I just sat on my bed and studied. I studied from 4:00-6:00 p.m. Stopped to eat supper and then

from 7:00-10:00 p.m. I studied some more. I thought I was doing pretty good. When I got into math class the next day I sat in my desk and worried. It seemed that studying made me forget everything I had known.
The test was the usual four pages. I looked through the test. I kept saying "turn down the heat, it's too hot in here." I started writing. It seemed easy. "Wow,' I thought. "I'm doing good." I finished and handed in my test.
The next two days were filled with anxiety and illness. My parents had never seen me like this before. I went into class on the third day. My test was on my desk. I turned it over. It had a big 91% on the front. I couldn't believe it. I had proved to my dad I could get over 65% and I found some good study habits.

An experience such as this one reinforces the idea that studying does help. The reason to strive for the good mark, however, was to prove something to her father, not to improve understanding of math. With our vision of "life-long learning" motivation such as this seems to miss that target.

Sorry to Disappoint Parents

Linda is sorry that her parents will be let down and she is disappointed in herself. Linda writes:

When I left the room all my friends were talking about how proud their parents would be of them. I then started to think what my parents would do when they saw my marks. And how could I do so bad on a test! I was so disappointed in myself. Later that day I started to relax and that's when all the answers came back to me.

"Disgusted" Parents

Darlene Grade 10:

Prior to my English test I tried to stay calm and remember what I had been studying for the last three days but suddenly my mind was a blank and I couldn't remember all that I had memorized. I tried desperately to recall Romeo and Juliet, and all of the other poems and stories that I had encountered, but I couldn't.
My hands started to sweat like Niagara Falls, and my throat tightened up. All that studying and hard work and I couldn't even remember any of it! I pictured my parents looking at my report card in disgust as they asked me why I had failed English.

Parental Advice

Parents provide reasons to study hard as Jeremy (Grade 9) writes:

"My dad told me all throughout the year that I should try just a little bit harder and get the good marks so I wouldn't have to write finals."

Again, studying to purely avoid finals is hardly an educationally sound reason. If no other reason were given, and the student cannot see any reason to study, then one could not blame the student for taking the parent's advice in that spirit.

Fear of Parents' Reaction and of Having to Repeat the Course.

Michel (Grade 11) is motivated by parents to not take the course over again:

> So here I am at the big Math 10 final. If I get 60% I pass the course, if not, I fail and have to take the boring course all over again. What about my parents? If I fail, they will kill me, or at least ground me for the summer.

We often only think of the times preceding and during the test as the most stressful; and perhaps for most they are. For others, however, the period after the test evokes even stronger feelings. Melinda expresses it this way:

> I find the hardest thing about writing a test is after you've written it. You check it over carefully and hand it in. It's always weird that just after I hand in a test all the answers come to me. After tests I'm thinking of what I'm going to do when my parents see my test and trying to calculate my mark by what I know I got wrong and what I know I got right.

After a test students find it is often a time of reckoning with parents. Relationships can become quite tense and strained. This is noticeable with strong students as well as weak students. It seems that high-achieving students worry as much or even more about their parents' reaction than low-achieving students.

Elana writes about the aftermath of the test and her concern about her parents' reaction to her results:

> After writing the test, the nervousness hasn't quite left, and I try to analyze what I got. Usually I have a feeling of assurance when I did good, and of more nervousness, tenseness when I've done bad. When I'm out of the room I always discuss the questions I didn't get with my friends to see if I was right or not. . . . After about ten minutes the excitement wears off, I forget about the test and am working on my next subject in school. Sometimes (rarely) I'll go back to the textbook to see if I got a question right or not. But usually I like to get the test over and done with and leave and go on.
>
> After the exam I was sure I was never going to pass, and end up being a bitter disappointment to my parents, especially next to my sister, who almost invariably got honors.

Stephanie, too, is equally concerned about her parents' reactions:

"When I was finished I felt much better. In the end I did really well. I had scored 93%. I was pleased as punch. So were my parents."

II. Corporeality

"Lived body refers to the phenomenological fact that we are always bodily in the world" (van Manen, 1990). The body responds differently to different experiences. Taking a test can cause a student's body to behave abnormally, because the body cannot be separated from lifeworld experiences. Because of this, the kind of reaction a body has to certain situations further gives insight into the meaning of the experience that one is engaged in. In drawing attention to understanding the body in childbirth, Bergum (1989) agrees with Woodman, (1985) and writes that the body has its own wisdom and does not lie to us. It knows and speaks, just as the body does when one is engaged in taking a test. To emphasize this point Bergum writes: "Merleau-Ponty reminds us that it is our bodily presence in the world that makes knowing possible: through our body we speak to the world--because the world in turn speaks to us through our body" (Martel & Peterat, 1985 in Bergum, 1989, p. 70).

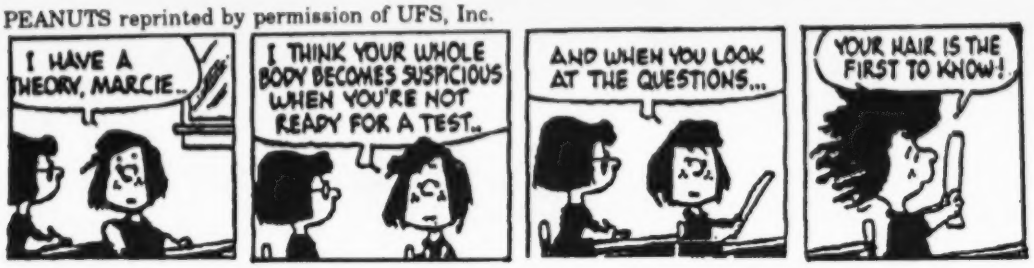
When one is gazed at critically the body becomes awkward and loses poise, but when the body is admired, the body is composed and elegant. Barritt et al. (1983) note that hiding and being seen or sought increases bodily awareness. In day-to-day life, students are for the most part unaware of their bodies--they take the body functions such as breathing, perspiring, moving, and so forth for granted. However, in testing situations, some students become somewhat surprised at their heightened perception of their body, and frustrated when it malfunctions.

The cartoon in Figure 7 illustrates the effect of that tests have on the body. This cartoon is congruent with the stories that the students wrote about their bodies during the test situation. In the cartoon, the little girl is already suspecting problems with the test she is about to take, and of course, once she actually reads the questions, her hair reacts abnormally. The following stories illustrate the malfunction of students' bodies and how this cartoon is so very close to reality.

Figure 7

Cartoon: The Physical Effects of Tests

PEANUTS reprinted by permission of UFS, Inc.


I HAVE A THEORY, MARCIE...
I THINK YOUR WHOLE BODY BECOMES SUSPICIOUS WHEN YOU'RE NOT READY FOR A TEST..
AND WHEN YOU LOOK AT THE QUESTIONS...
YOUR HAIR IS THE FIRST TO KNOW!

Tests Can Have a Physical Effect On Students Which Is Not Like Everyday Bodily Functioning.

The students have written stories about how they have been physically affected by tests. I have arranged their stories by time element: before, during, and after the test within the topic, beginning with "Experiencing Heaviness and Exhaustion," "Experiencing Heightened Perception of Body Reactions and Senses," "Experiencing Malfunctioning of Body and Mind," and "Experiencing Lingering Memory of Sounds and Smells."

Robin:

"My palms were so sweaty my pencil kept slipping out of my hand, and I was breathing heavy until about fifteen minutes into the exam. . . . After the exam I felt such a rush because it's done. PHYSICS is no more!"

Ian:

"I had to take deep breathes to calm myself every time I came to a question I did not immediately know the answer to."

Lisa:

"I can't even begin to explain the feeling in my gut. Now my head starts pounding. HEADACHE!"

Darlene:

"My hands started to sweat like Niagara Falls, and my throat tightened up."

Students' Stories

Before the Test:

Experiencing Heaviness and Exhaustion Janet describes the experience before the test this way: "The heaviness of the upcoming test was exhausting me. I was feeling so helpless. No-one to save me. . . . I was so tense and frightened I made mistakes I normally wouldn't have made."

Experiencing Heightened Perception of Body Reactions and Senses

Elana writes:

> I know that every time before a major test I'm always nervous. I can remember the distinct feeling right before walking into the test room my heart beating as I frantically wonder, "Have I studied enough?" . . . . When I'm in the room with my test in front of me I'm distinctly aware of everyone around me looking at their tests, and the absolute silence. I often worry that my mind will go blank. When I'm not engrossed in my test I'm always aware of the silence there always is when writing a test. Occasionally someone coughing or rustling will break my concentration.

Vera was sensitive to various qualities of temperature, humidity, light, and atmosphere in her exam room: "How heavy I felt going into the **cold** classroom. It was dark, unfriendly and damp. . . . It was set in such a way so as to make the writers uncomfortable and anxious, and that's how I felt. . . . **cold** and unfamiliar, like the building."

> *Dentists' offices are always* ***cold****.*
> *Operating rooms are* ***concrete cold.***

Before a test, one becomes aware of different bodily sensations and behaviors that are not usually noticed. Alicia remembers:

"Another thing, my hands always sweat before any exam I happen to be taking, be it oral or writing."

Bernice:

> How do I experience taking a test? I have a deep feeling of emptiness in my stomach, a tensing of my diaphragm, nervous tension, and a cold clammy feeling of the hands as the test is passed out.
> I have no thought processes about general or specific information on the test but I have a need to get to the paper quickly and an anxious feeling as classmates receive their exam before I do. I don't want them to have an advantage.
> My mind is not blank, but dark as if no one thought can clearly escape--things run together.
> My shoulders are tense. Even pens slide from hands due to nervous stress. Artificial bright lights glare from above obscuring any writing on test paper.

Robin writes:

> The physics exam was only three days away and I need to cram RIGHT NOW. Just the mere thought of that exam made my stomach turn, my palms go sweaty, and a sudden feeling of utter panic that made me want to study right away. So the cramming began.
> It's the day before the exam. My study notes are like an extension of my body--I go nowhere without them. That night I feel nauseous and I am

convinced that I will be too sick to write the final tomorrow, and I have the constant panic feeling too.

Rosalyn writes:

> My feelings before the test were cries of anxiety, apprehension and extreme tension. I was afraid, more precisely, terrified, when the test was placed in front of me. It was a very weird experience because I suddenly got very hot and felt as if I were sweating from the inside of my body; sort of underneath my skin but no perspiration could be seen on any part of my body.

In their anticipation of the test Bernice's, Robin's and Rosalyn's bodies behaved differently than normal, such as by sweating excessively, becoming hot, and becoming nauseous, and so on. They cite tension and panic at the thought of the test. This panic then in turn caused their bodies to react in a "flight" response, known in animals in times of danger.

<u>During the Test:</u>

<u>Experiencing Malfunctioning of Body and Mind</u>

Bernice writes:

> Eyes stare unseeingly at the brown and orange carpet before any will of mind forces you to the question. First question is read fast and I can't comprehend it until I make a conscious effort to concentrate, read, and understand. EYES DON'T FOCUS.
> Each question is a marathon and the test lasts for hours in the dead air of the oppressive, too quiet room. Can feel the weight of the air--jealous and worried feeling as first student hands in their finished test.

Suzy writes:

> As it usually does, while I write an exam, my foot began to tap on the floor. The room was tight. My neighbors were too close to me. I could feel the boy behind me breathing on my neck. My shirt was too tight. I began to sweat harder. I could feel a knot in my stomach getting bigger and bigger. My leg began to shake as I tapped my foot. The stark white paper with a few bold black numbers blinded me. I couldn't read the paper. I could smell the ink that was from the photocopying machine. The smell grew stronger and stronger and more vile. I took a deep breath and began my exam. I couldn't have concentrated on that exam too hard because I began to think about school. What if I fail? What will my parents think? I'm going to fail. I can't read this exam!

Barb writes:

> The test experience I remember most vividly was in my first year when I was writing my history 1000 final exam. There were close to 200

students in the room writing the exam. I remember feeling enclosed, claustrophobic and hot. I was also feeling worried because the studying I had done didn't help me in the least. I was almost to the point of crying emotionally because of my late night and my test anxiety.
The mood in the room was tense. Most of the students were awaiting the teacher's arrival so they could begin the exam. It was my last exam before Christmas break so I was overly anxious to get it finished. At this point I began chewing nervously on the end of the pencil.
When I got my exam booklet I immediately turned to the three essay questions. I read them over carefully. I began to feel clammy, yet hot, and I began to perspire. My heart pounded harder in my chest as I quickly jotted down all that I could remember about the topics. I realized rather quickly, however, that I hadn't remembered much.
I remember smelling a sweaty smell. Obviously people were perspiring as a result of the tense atmosphere. My wrist and hand ached from my writing and the room was quiet enough to drop a pin in. A few anonymous coughs disrupted the exam, but most people remained concentrating on the problem at hand.

Ian writes:

I was so anxious to write my Grade 12 physics that I could not stop my leg from going up and down. As I waited to receive the test I looked around and noticed seven to eight rows of 40 desks each and I wanted to see if everybody was as pumped as I was. They must have been because I was even more nervous after doing this.
During the test I had to constantly put down my pencil so I could get rid of the sweat that was on my palms. Furthermore I kept rubbing my hand (that I wasn't writing with) on my pant leg; this inadvertently served two purposes:
a) it helped me concentrate, and
b) it annoyed the hell out of me.

During the test, the abnormal reactions continue, fueled by concern about failing, worry about what parents would think, and attempts to recall information to answer the questions. Students are hindered by a sense of heaviness, sweaty hands, heavy breathing, uncontrollable foot tapping, a feeling of suffocation, and impairment of vision.

<u>After the Test</u>
Rosalyn writes:

Following the test I was relieved but felt a deep sense of failure and disgust at not achieving my greatest potential. I was very sad and depressed even though I was wrapping up after the test. Once I walked out of the classroom I was almost like I could breathe again. While writing this test and experiencing all these negative emotions, feelings, and moods I felt very claustrophobic. Upon leaving the exam I was glad it was over--a great load had been lifted off my shoulders.

Experiencing Lingering Memory of Sounds and Smells

Suzy writes:

> I looked at my paper but it was still blinding white. I could see that I finished the exam but I could still smell the ink as I walked out of the classroom. I was still sweating but I wasn't as tight or tense. I began to cool off. My clothing loosened up, and I returned to regular breathing. The knot in my stomach went away and I was thinking about the exam. I didn't remember any of the questions and I didn't know how I'd do. To this day if I'm in a panic situation like that, I can still smell the photocopy ink.

For most students, a great sense of relief and euphoria overcomes them once they have finished the test. This is evident even when they feel they have not done well. They notice that their bodily functions are returning to normal, but the lingering memory of the smells remain for some students. Smell is a particularly powerful sense that brings back memories, as Alfred who chose to write in the third person and in the past tense, attests:

Alfred writes:

> The lab exam was about to begin for Alfred's zoology class. Alfred waited with other students outside the lab doors which were locked. Time seemed to stand still as the anatomy of various animals and insects flashed though Alfred's mind. Alfred himself felt like he was part of a cruel experiment that was being concluded by the instructors. As the doors opened to allow students in, the smell of formaldehyde from the specimens nauseated Alfred's nervous stomach. The lab felt extremely cold but this did not explain the sweaty palms and beads of perspiration that were forming on Alfred's forehead. The expression on the face of the instructor angered Alfred to the point that he gritted his teeth whenever the instructor would walk by. To this day the smell of formaldehyde triggers sweaty palms, nervousness, and anger.

Sounds also affect the senses and remain buried in the memory for years later. Severyn has vivid memories of the testing experience that he chose to write about:

> After the papers were handed out all you could hear was the sound of paper rattling and pencils on paper--that horrible, scratching, sound. I was almost sick to my stomach. Never before had writing a test bothered me so much. . . .That test was the worst testing experience of my life and one I will never forget. The eerie silence and the scratchy pencils are images that make it feel like I wrote the exam only yesterday.

In writing about their test experiences, students write of feelings of heaviness, exhaustion, temperature change, tenseness, awareness of their

beating hearts, "hearing" silence, and frustration with their body's general malfunctioning. Students also note that to this day certain smells and sounds trigger memories of tests they took several years before.

III. Spatiality

Lived space is felt space which is something abstract rather than concrete as in a mathematical sense (van Manen, 1990, p. 102). Because of different situations in which we often find ourselves, space affects us differently. The same space in one instance appears different in another. For example, we may feel small, insignificant and uncomfortable in an unfamiliar room filled with strangers, yet later when we have spent time in the room, on the next occasion we enter it we feel it is not such a forbidding place at all. Merleau-Ponty (1962) questions the meaning of the sense of spatiality. What is the nature, for example, of a reading space? How is the experience of this space related to the experience of the space where we see the reader sitting while submerged in a book? We could then ask, what is it about the space that makes it a good space to read? Students in testing situations perceive the space in which they write the test differently than when they go about their regular classroom work. Some places are good places to take tests; others may not be so appropriate. While a space may be good for some activities, the same space seems to be less desirable for others. For example, the familiar gym that students played floor hockey in the previous day that is now set up with rows and rows of desks, takes on an ominous and strange look on the day of the test. Langeveld (1983) describes the strangeness of place as one where "we experience the dialogue with nothingness; we are sucked into the spell of emptiness, and we experience the loss of a sense of self. This is also where we experience fear and anxiety" (p. 16).

Tests Can Affect Students' Perception and Experience of Space

The spatiality topics that arose from the students' stories are "The Familiar Becomes the Unfamiliar," and "Strangeness of Place."

Hercules:

"The gym had been divided again by the big 'wooden curtain.' Over a hundred desks were aligned perfectly in rows that ran from one end of the gym to the next."

Perry:

"These exams were to be written in the large gym of my high school. As I walked in, I was stunned at how many desks were set up. I estimated that there were at least 300 desks all set up in vertical rows."

Kev:

"The room was stuffy and it felt like a gaol that I couldn't get out of if I tried."

Severyn:
"The room was silent and cold and it smelled like sweaty gym suits."

Ray:
"The room felt unusual because we had to move our desks far away from each other--and I then got very uptight."

Students' Stories

The Familiar Become the Unfamiliar

How do students experience the existential of spatiality during a test? Do they really see a normally familiar room differently for the first time? Does the space take on different dimensions or temperatures? Does a "different" place actually comfort test-writing? On the other hand, are students oblivious to these qualities? When writing about their test experiences, students included some description on their surroundings. Even familiar surroundings however, as Alicia describes, can be unpleasant during test time. She describes her difficulty with her surroundings when she wrote a "pop quiz":

> My classroom sounded too quiet and I couldn't think. The room felt very stuffy and hot. It also seemed to be closing in around me and I couldn't concentrate any more on my test. Finally I just guessed at the answers which I hadn't filled in and handed in my test for I knew that if I stayed there any longer I would get even more frustrated.

On another occasion during a test for which she was given adequate time to prepare, the spatial effect was quite different: "The room and everything surrounding me became unnoticed, for all I could do was get onto the next questions. When I finished my exam I left the room with a lot of self-satisfaction."

Strangeness of Place

It seems that other factors are involved with the spatial effect that one has in test-taking. A pop quiz in an uncomfortable environment caused anxiety whereas a well-advertised test has a different effect, one that has in fact no effect on spatiality. However, one can become so absorbed in the writing of the test that spatiality is a nonentity.
Perry writes about the "worst exam of my life":

> I can still remember the day I wrote my first diploma exam. It was my Math 30 exam, and I was really nervous. I didn't know what to expect. I'd heard so many rumors about how difficult they were so I was absolutely terrified. These exams were to be written in the large gym of my high school. As I walked in, I was stunned at how many desks were set up. I estimated that there were at least 300 desks all set up in vertical rows. There were two exams being written that morning, Math 30 and Math 31. I searched for any empty desk, and then quietly took a seat. Many of the people around me were quickly reading information hoping to cram everything in they could. I was too nervous. I just

wanted to relax and calm down. The rows beside me were writing the Math 31 exam. This way no one could cheat.
The room was really cold and I couldn't stop shivering. Didn't they believe in heat? Why couldn't I relax? Each row had two teachers monitoring it watching our every move. Trust was certainly not in the air. As they started to pass out the exams, I wondered what everyone else was thinking. Were they as nervous as me? They say it's good to be nervous for an exam because that means you're prepared. I sure didn't feel prepared. I didn't like writing the exam with all those people I didn't know. It felt so unfamiliar when I was writing the exam. The teachers constantly walked up and down the rows. It was nerve wracking. An announcer kept telling us how much time we had left. It was so hard to concentrate. I don't ever want to be in a situation like again. When I left the exam, I felt so drained.
It was the worst exam of my life.

Perry does not mention the actual test content, instead he recalls the space in which he had to write it. He remembers vividly the unfamiliarity of the cold space, the large number of people, monitoring and surveillance, and arrangement of desks in a once familiar gym.

Yvonne writes about a space that was particularly important to her performance on her test:

> I woke up that morning of my skating test not really knowing what to expect. I didn't know if I should be excited, nervous or both because I had never seen a test day before. I was excited at first because my mom had bought me a brand new skating dress. It was black with a sequined red rose on the front. I loved it.
> As my mom was driving me to the skating rink I began to get more nervous. My stomach was doing flip flops and all of a sudden I wasn't so excited anymore. When I got to the rink, my coach was there waiting to greet me. He quickly told me to get my skates on so I could have a bit of time to warm up. <u>As I looked around the rink it didn't look anything like it usually did.</u> [emphasis added] There were not very many children around, just adults with long coats, clipboards and pens. Now I was scared. As I stepped on the rink, I was literally shaking in my boots. The rink seemed extra cold that day. I got the chance to practice my different figures for awhile before a judge walked up to me and told me they were ready to begin.

Bollnow (1960) describes spatiality the following way:

> Strangeness stands in contrast with what is his own. Strangeness is the area where man no longer knows his way around and where he therefore feels hopeless. He can of course go into strange places to learn new things or on business, but he is outside the trusted area, in a hostile world, and the feeling of strangeness can overpower him. We all recognize the feeling of inexpressible homesickness. (p. 35)

It is strange how one can actually feel homesick in a gym where tests are often written. In the early 1960s I remember writing very important exams with hundreds of other students in a huge gymnasium and suddenly feeling homesick for my mother, the farm, and my pets. If we view testing pedagogically, it may help to make arrangements for students to be in familiar surroundings such as their home-room to write important tests that will have an impact on their future. When I was in the gym that particular day, my thoughts were focused on my home, not on biology. Sometimes teachers do not seem to be very sensitive to students' sense of spatiality. Exams, for administrative purposes, are still held in gymnasiums into which students are herded, as is often the case, to their trial. Even when this is not necessary, some administrators believe that this is the most efficient way to handle the testing program. For example, I had to administer Grade 9 mathematics field tests to three Grade 9 classes in a junior-high school. My preference was to do this with individual classes in their home-rooms. The administrator, who I think had lost touch with students' needs, felt it was more "efficient" to have all the students write at once in the gym. Not only did this take gym time away from other classes, but it was uncomfortable for the students and myself, trying to deal with this large number of students. It certainly made it more difficult to put the students at ease. The field testing was not as successful as I would have liked, and I was very frustrated, mostly because I knew I could have made this a much more pleasant experience for the students if I could have coached them through this class by class. The administrator later told me that he thought I would have preferred to give the tests in "one batch" so that instead of taking three hours to administer them, I could "get it over and done with" in one hour. I believe I was viewed as a technician, rather than a pedagogue, as Kansanen (1991) so describes:

> [A]s a technician, the teacher is only a mediator of a certain content . . . . and his activity is guided by a detailed curriculum and circumstantial textbooks with ready-made teaching material and tests. In that position, it is perhaps not important how the teacher thinks and decides because he or she does not have much to decide. (p. 251)

It would seem that the needs of the students were not first in that school, rather, running an efficient business appeared to be the priority, just as Apple (1979) observed that the school works as "a bureaucratic machine overrunning human concerns" (p. 120). Van Manen (1992) addresses the threat of a "runaway dominance of instrumental reason" where the dominance of technological rationality gets in the way of the pedagogical nature of testing (p. 15). Noddings (1991) also wonders about the lack of caring and pedagogical understanding that occur in schools. She says: "The structure of schooling today in the US may be pathological. It may work against creating, maintaining, and enhancing caring relations" (p. 4). She continues:

> [S]chools should be committed to a great moral purpose: to care for children so that they, too, will be prepared to care. Instead, too many educators--perceiving the general and pervasive deterioration of schooling--have advised that the shools [sic] concentrate on academic

matters. Some have even said that the schools were designed for academic purposes, but these people are plainly wrong. (p. 5)

Langeveld (1983) and Apple (1979) concur that educators objectify the student and put their own interests first. Langeveld says:

> We need only remind ourselves how strongly the classrooms of the school are determined by interests of exactness and objectivity in order to ask whether the child's experiences differ from this. We also know how the school dictates the bodily behavior of the child according to unyielding codes and policies. (p. 187)

Caring administrators might orient themselves better pedagogically and put the needs of the students first, by providing comfortable testing areas, rather than putting their own needs first, such as "running a tight ship." In other words, often the administrator uses "instrumental reasoning" rather than pedagogical understanding (van Manen, 1991). An administrator is an educator or pedagogue, but it seems that many forget that they were pedagogues who may once have understood children in a caring way. Van Manen (1991) underscores this point: "A pedagogue is an educator (teacher, counselor, administrator, etc.) who understands children in a caring way and who has a personal interest in children's education and their growth toward mature adulthood" (p. 4).

Students, as Bollnow (1960, p. 35) explains, seem to be overpowered by the strangeness of place. They are now outside their "trusted area, in a hostile world": the test situation. Students wrote of feeling strange--things looking different, temperatures being different, and people behaving differently in this strange environment that only hours before, was familiar. Coping with these feelings along with the anxiety of the tests made the experience not a comfortable one. Giving a test as a matter of course does not occur--teachers take on a military attitude and focus on surveillance. This contributes to the "strangeness of place."

IV. Temporality

> **Up to the beginning of this century people believed in an absolute time. That is, each event could be labeled by a number called "time" in a unique way, and all good clocks would agree on the time interval between two events. (Hawking, 1988, p. 143)**

"Lived time (temporality) is subjective time as opposed to clock time or objective time" (van Manen, 1990, p. 106). Consequently, because of our subjectivity, our experience of time changes with events, similarly to our experience of space. Time "flies" when we are engrossed in something pleasurable, but when we have nothing to do or we are experiencing an uncomfortable situation, time tends to drag (Barritt et al., 1983, p. 156; van den Berg, 1970). Hunsberger (Pinar & Reynolds, 1992) notes that "we say both that 'time drags' and that 'time flies' and see no contradiction or

inaccuracy there" (p. 64). In life and in testing, it typically does one or the other, as the students in their stories describe. In understanding the meaning of taking a test the passage of time is a meaningful part of that experience as these students' stories illustrate. Hawking (1988) explains that the discovery of the speed of light appeared the same to every observer, no matter how he was moving. This discovery then led to the theory of relativity. That means that one had to abandon the idea that there was an absolute time, and instead each person would have his or her own measure of time and so time became a more personal concept, "relative to the observer who measured it" (p. 143). The experience of time for students in the test situation was also relative, as the students' stories show.

Tests Can Affect the Students' Perception and Experience of Time

To show these different experiences that students had with time, I have arranged their stories into topics, beginning with the focus on the elements of time, before, during, and after the test, followed by specific concerns about time and testing such as "Experiencing Lack of Time to Complete The Test," "The Dilemma of Too Much Time," and "Strategies to 'Beat the Clock.'"

First I will present a flavor by sharing some students' comments and anecdotes of the way they experience the time period before, during, and after the test, and then show through the students' stories how the tests affect their relations with themselves and others, their body, their space, and time.

Students' Stories

The Different Experiences of Time Before, During and After the Test:

> **[T]he concept of time has no meaning before the beginning of the universe. This was first pointed out by St. Augustine. When asked: What did God do before he created the universe? Augustine didn't reply: He was preparing Hell for people who asked such questions. Instead, he said that time was a property of the universe that God created, and that time did not exist before the beginning of the universe. (Hawking, 1988, p. 8)**

The Students' Experience of Time Before a Test

How is time experienced differently before a test? Does it drag? Does time race by at the speed of light? Or does it pass similarly like any other time? Again we can look to students' lived experience to understand this. (When names are not attached to student comments, it indicates that I overheard the comments in a crowd of unidentified students.)

Nadia:

"The bus ride on test morning was over all too quick. We were at school in no time. How can we be here already! I'm not ready yet!"

Greg, on the other hand, laments:

> It seems that the test time is never going to arrive. Everyone mills about the (test room) entrance like forlorn sheep. The ones that really bug me though are the keeners, showing off what they know. I hate that. I hate waiting for the test to start. Time just seems to drag.

Students experience time differently before the test. While Nadia and Greg find that time goes too quickly or it drags, many like Guy finds it is just like any other class to wait for:

"I stood outside the door--just like always. Just like waiting for class. Waiting for the test time wasn't a big happening for me. It was going to come and go--just like everything else."

The nervousness and anxiety . . . .

"I always feel so nervous before tests because even though you studied, you're worried about what mark you'll get."

"I am always anxious before a paper-pencil test; I am always scared I won't meet the 'teacher's requirements.'"

"I feel nervous and sick when preparing for tests. . . . One of my biggest worries is that I won't be tested on what I know or studied."

"I worry--do I know the right stuff? . . . . I often worry that I'll miss the obvious question."

"Will my answers be good enough for the teacher? Will the teacher be disappointed?"

Pele:

"When I walked in the door, I knew it was test day because everyone was quiet."

Jenny Lee:

"While we were waiting for the teacher to hand out the tests, the class was restless and no-one could sit still."

Lee:

It was a couple of minutes before we were to enter the gym for the science final. As I was standing outside the gym doors, I was in a big panic. I was trying to study and review the book in a few minutes. I felt sick to my stomach. I'm not very good in science and I was sure I was going to fail.

Kathleen:

"All I want to do is get this test out of my face and be done with it forever."

Ray:

Earlier this year our science teacher told us we had a science exam in two days. The moment it was mentioned, I felt a cold chill run down my back. I started to feel nervous all over my body. I really felt hot inside and felt like it was the end of my life. Our teacher gave us an outline of what was going to be on the test. It helped to ease the tension a little bit.

Samuel:

"I'm kind of looking forward to writing this test to get it over with before all the information drains out of my head."

Rae:

"I felt kinda good because I'm going to get it done with and I'm not going to have to worry anymore."

Before the test even begins many students worry about the result they will achieve. Will they let down their teacher? Their friends? Their parents? Themselves? They feel failure before they start. Why is this result so important? Is it the result that is important or is it the disclosure of the result to others? Perhaps students fear that the test results will paint an inaccurate picture of them. The belief that a test result is a truer indicator of one's abilities than what the person displays in everyday life is puzzling; test results appear to have more legitimacy than one's personal knowledge. Because of this legitimacy, the test itself causes anxiety even before the test begins.

Students' Experiences of Time During the Test

Nadia writes:

"I can't believe that clock! The quarter hours are going like minutes! It's me against that damn clock!"

Frustration at being short-changed over time is felt also by Minda and Phil. Minda says:

"I could have done all the questions if I had been given enough time!"

Phil writes:

"[M]y full potential [was not realized] due to lack of time. . . . all thoughts crossing my mind was to get down as much as I possibly could on paper within the time allowed."

From these statements extracted from anecdotes, it is clear to see the emergent theme of test and time: students desire enough time to write a test.

In contrast, this is Nadine's experience: "The test went on and on. . . it seemed like all morning but it was probably only half a morning." A test that is not going well is an uncomfortable unending experience.

The frustration and anxiety continue . .

Kristen:

Is this the answer you want? Do you want it written this way? Do you want elaboration here? A summary perhaps? Which way do you want me to express it? I know all the information--I just don't know which bit you want!

Paco:

"Around the middle of the test you look around and think about the stupidest things; like 'what the hell do people look at when they stare at the ceiling trying to remember a stupid question?'"

Hercules:

"It took me over two hours before I finally filled in all the blanks."

Darlene:

"I pictured my parents looking at my report card in disgust as they asked why I had failed English."

Kev:

"The chair felt like an electric chair."

Marie:

"When it's in the middle [of the test] I just wonder if I've got all of them wrong or something."

Columbo:

"I find tests relaxing and easy during the test while the time before and after are the killers."

Jim:

"The time during the test was very real. The clock was a central focus."

Eddie:

I was really worried about that test. I practiced every day for three weeks the essay style that was required for the test. No amount of preparation was too much. To reassure myself, I went into the big gym the day before the test and I looked at the spot I would sit in, found where the bathroom was, and measured how long it would take to get from my apartment to the test taking area. "I'm not taking any chances on this one!" I thought to myself. Planning and walking all these steps out helped relieve some of my anxiety--anxiety that was making me sick to my stomach.

The day of the examination I went to the bathroom at the gym and ran my hands under hot water. You're probably wondering what the hell I was doing that for. Well, it's like this. My fingers always feel cold in an exam and this drives me nuts. Warming them up helps and it's just one more thing that I do to be absolutely prepared for the test.

> All the preparation paid off, I might tell you. I finally found out I passed the exam. What a relief! You know, it was like a huge obstacle knocked out of the way. Now I can live again.

Eddie went to extreme lengths to prepare for his test. It was on his mind day and night and he left no stone unturned. In what other situation would Eddie prepare so thoroughly? Why does he take this activity to the extreme? What would have his next steps been if he had failed?

The anxiety that occurs during the test is as evident now as it was before the test. It is a similar experience, except that this time students have to guess how the teacher wants them to express what they know. To cope, students often just write everything they know in the allotted time and hope that some of which they write "blindfolded" hits the target.

Those who have not grasped the concepts yet often are still expected to write the test with the rest of the class because of inflexible timetables. Van Manen (1991) describes the test administration this way:

> Although quite a few students have not yet mastered a new concept or skill, the teacher cannot wait, wants to move on, and imposes a test as a result of which many students will learn the meaning of failure, poor performance, and low self-esteem. (p. 151)

Yet other students feel they have "hit the jackpot." These students are celebrating their good fortune by finally hitting the target.

"I know this stuff--I'm even impressing myself!"

"Wow, that sounds good! What a wonderful teacher--this has been a great course. . . . "

"Hey, I don't believe it but am I going to look good! My parents are going to give me rave reviews!"

Are these expressions authentic celebrations of learning, or again are they expressions of relief that the student by some stroke of luck by hitting the target, is now going to win approval from significant others? I suspect that most likely it is the latter.

From some of the students' lived experiences, time during the test continues to be an inconsistent and frustrating element. There does not seem to be enough time to demonstrate what one knows. The clock hands sweep by, mocking the frantic student. The clock can take on a persona, and taunt the student as Langeveld (1983) describes: "the clock looks at us pokerfaced. Maybe time took a rest; but it is also quite possible that the clock stealthily moved his arms forward three hours as soon as we had left the room" (p. 182).

Students' Experiences of Time After the Test Has Taken Place

The shame . . . .

"I blew it--big time! My old man's going to hit the roof. It ticks me off to screw up like that though. The directions were there right in front of me, but I read, 'Do two questions altogether' instead of 'Do two questions from each section.' What a screw-up! I'm dead in the water."

"Oh, my dad's O.K.--he's cool. It's my mom. She gets disjointed over my test marks. She won't leave it alone. 'What went wrong, dear? What's the matter with you? Jennifer gets good test marks. Why can't you? Is there something wrong?' God, she doesn't know when to quit! I feel bad though. I hate letting her down, you know--disappointing her like that."

On the other hand there are positive experiences:

"Wow, I think I did OK. It was a good test . . . . "

"I knew what would be on there so I can't blame anyone for not doing well . . . . It was good. I feel good about it."

Hercules:
"I left the gym feeling rather drained and vowed to give my teacher a piece of my mind. But I later decided it wasn't worth it."

Mark:
"After the test I feel like a heavyweight has been lifted off me and I want to forget about the test."

Marie:
"I felt so good about it. It was over and I was pretty sure I passed. I was proud of myself for studying. It had paid off this time."

Lee:
"As I got up and left, I felt as though a huge weight had been lifted off my shoulders!"

Jayne:
"First, I felt relieved that I had finished the test, and second, I felt worried that I had also failed."

Major:
"As I walked out I felt as if a great weight had been lifted from my shoulders. Well what do you expect? It was my last final I had to write. Thank God!"

Leann:
All the rest of the day I worried about my mark to see if I failed or if I passed. That's how all my test or exams go. I always think I'm not good

enough in this class so I know that I'll fail. But I don't always. A lot of the times I pass.

Pat:
"I was nervous coming into the test, but once I sat down I forgot about it and was completely relaxed. The churning feeling I got in my stomach disappeared. It was a good test and I did well."

Jenny Lee:
"After I handed in my test I realized how stupid I was to get so nervous. As it turned out I got 92% on it. I guess I over-reacted."

Michelle:
"Now I feel like I have space, freedom and quality time with friends. Not worrying about some test!"

Doug:
"When we received the test I answered every question the best I could and it showed. I got 93%."

Jim:
"When I finished the test it was a relief because I could relax my brain."

Nicole (9 years old):
I got hot and said I gotta remember this but I kept trying to remember and I couldn't until I went home for lunch and I said, 'Oh no! It's the equator! Oh, and it's too late. I can't go back and fix it!'

Group of Grade 3 Children:
"I feel--I feel happy cos we've finished that test."
"Yeah--It's all over--it's all over with."
"But then--we have to find out what we got!"
"Oh yikes!"

Ray:
"The next day when the tests were handed back I only got one question wrong and it was the greatest feeling of my life."

Harry:
"Lots of times after I get the test back I go through them and I see so many stupid--really stupid things I did on the test. I just hate myself for that!"

Moe:
"The numbers on the test were so low I can't even tell <u>you</u> them. My parents didn't ever see them."

At test times there are winners and losers. Some will face disapproval while others face approval. Was the test "good" in the sense that it enabled the student to display authentic achievement, or was it good in the sense that

it enabled the student to gain a superior position to others? What a powerful impact an education exercise like this can have on the student! The students appear to be at the mercy of the test, for better--or worse.

Generally, students experienced relief when the test was over. Many talked about a great weight being lifted off their shoulders. Others became depressed and tried to put the test experience out of their minds to avoid reliving it. Others felt that now life was back to normal. Does that mean then that life was abnormal during the test? Their bodies seemed to think so judging by the way some students described it.

The Waiting . . . .

"Has she marked the tests yet? . . . . Can we get our grades? . . . When will we know what we've got?"

What is it like to await test grades? Ronnie, a grade four student, describes it this way:

"I went to school the next day and she handed out the test and every time she handed out the test the whole class goes (to the tune of a suspense thriller), 'dah de da dah, dah de da dah!'"

The Results . . . .

The suspense of win/lose is evident. It really seems like a sorting out procedure--choosing teams of winners and losers. "Which team am I on this week? Will I make it? I hope so!"

"If only I had time to study! If only I hadn't left my books at school!". . . .
"Oh wow, did I do that well really? Neato! Candace, you aced that test. Wowee! You too, Jason. Brains!"

The disappointment--and the welcome surprise . . . .

Judgments by peers are made instantly on "the grade." You <u>are</u> your test grade. If this is true, then what is it like to receive a <u>failing</u> grade? The following is a personal account describing that experience by a Grade 12 student, John:

> When I received the grade, it was a total shock. It felt like someone had slapped me in the face. I felt myself start to become flushed and my concentration went completely down the drain. My first thought was that it had to be a mistake, so I immediately checked over my score. I didn't want anyone to know my grade because I felt entirely ashamed and embarrassed. I put the exam away in such a place that I wouldn't have to keep encountering it when I was going through my papers. I just wanted to shut it out of my mind and totally forget the whole experience. Openly, I acted as if my grade didn't hurt me, but inside I could feel my stomach churning and I got a headache. I felt even worse about my failing grade because my expectations of my mark were much higher than I received. (Pike, 1991, p. 220)

John experienced shame and put the shameful thing out of sight so others will not see his grade. Rather than putting himself out of sight, he puts away the paper that shamed him.

From the student's point of view, this grade did not reflect his knowledge. It was an untruth. He felt he deserved better. How do students deal with untruthful accounts of themselves? The jury is out and the students are guilty. Has this been a fair trial? Students feel frustrated when they have been condemned for something of which they were not guilty--and yet, the case is closed. Although this anecdote did not come from a student in my study, it reflected the anguish of many students who were frustrated.

N.: Have you ever had a bad mark?
Don (9 years old): Yeah-I felt uncomfortable and embarrassed and stuff because other people got good marks --I cover up my mark if I get a really bad mark sometimes--but I don't if I get an OK mark!

In contrast, we have Sandra; she feels she had a lucky break. For her it is a chance to "take the grade and run."

"I couldn't believe I had done so well--I studied, I know, but at first I thought there must be some mistake. Then I thought, 'The gods are smiling down on me at last!' What a break!"

The relief that this student expresses seems to centre on the narrow escape. She isn't caught. She's innocent--until next time. Like John, Sandra feels that she really didn't deserve this mark either; but in contrast to John, Sandra felt that her mark reflected more than what she knew. Nevertheless, Sandra is going to enjoy her elevated status while she can because she can't be sure that she will make a repeat performance. Tests are too fickle for that.

Minda:

"The time kept carrying on and on and I didn't know what to do. 'Two minutes,' the teacher called. I started to panic. I guessed on more than half the questions."

Lee:

"People were handing their tests in and leaving! How could they be done so fast? I'm not even half way done!"

Columbo:

"As I write I have no sense of time. But when I finish, it seems time has been flying by."

Experiencing Lack of Time to Complete Test

How do students experience not having enough time to write the test? A student from another study comments about the lack of time, and the urging on by teachers to work through a test.

"[Sonya] says that during the spelling tests the teacher says the next spelling word before she has a chance to finish the one she's writing, and this makes it hard to remember what came before" (Witte & Blakey, 1991, p. 75).

With the daily pressures of the classroom and the need to concern to "cover the curriculum" sometimes teachers may not realize how much they hurry students through their work, particularly tests. Bollnow (1960) notes that to learn patience is more difficult for teachers than gardeners and farmers who can not really hurry a plant along in growth. The gardener can not intervene as a teacher can. The teacher has deadlines to meet and can become impatient with children who are delaying the deadline. Bollnow writes:

> Generally, patience is a virtue which reconciles human beings and time. It is the virtue of waiting. We gain the best understanding of it when we look at its opposite, at impatience, or expressed more directly, when we look at haste. Haste has its origin in the natural human desire to surpass the course of time, to try to reach the destination earlier than possible under given circumstances. Impatience or haste is an unnatural human temptation because it finds its roots in the attitude of anticipation, in the desire to skip the present and get at the goal as fast as possible. (p. 13)

Caring and sensitive teachers do not purposely make test times difficult for students, but because of schedules and other school regulations, teachers may not have the flexibility that they would like. From the document Trying To Teach (ATA, 1993) we are informed that teachers are under constant pressure to do more in less time. Further, Bruinsma (1992) quotes the former minister for education: "Our students will be at the top on national and international test results. Every child will learn to read, write, compute and yes . . . to spell" (p. 8).

Melinda writes:

> Often time is a problem. I like to take my time on tests but often the time forces me to go as quickly as possible. Suddenly I'm one of the last people writing the test and I'm concentrating so hard on finishing the test, my mind goes blank.

Ann, frustrated with the time allotment, believes a common-sense approach toward it should be given: "if professors realize our time is limited, why not adapt our time allotment accordingly?"

The time element has a great influence on students and their attempt to show what they know. Often teachers do not really discover students' strengths when time restrictions are put on them because they do not give students the opportunity to show their strengths.

Second-language students such as Mei-Lei are doubly penalized:

> [T]he examiner said, "time is over." I was really mad, because I could not finish the test and not because I am not able to answer, but because I was slow in answering. It is natural because English is not my mother tongue.

Phil writes:

> Exams and tests are traumatic at best. Though there are many that stand out, there was one particular Social Studies exam that I remember. The exam consisted of several short-answer questions and three essays. Two hours of time were allotted to complete the test. I was able to complete the short-answer questions and two of the essays in the two hours, but the third essay was barely started as time ran out. It was two weeks before I received a grade on the exam and during that time I was sure I had failed. My attitude during those weeks was melancholy at best. I was unmotivated to work and felt like a failure. It took more time than I expected to write the different components of the test. Brief periods of indecisions or I would "draw a blank" caused the need for more time. I remember walking away from the exam knowing that I had failed it, and that feeling stayed with me for the rest of the day.

We should wonder if students can perform their best under these stressful conditions caused by test time limits. Is a timed test a fair test? Students appear willing to share what they know and can do, given adequate time. With a time restriction, is this a test of strategy to beat the clock? Is outwitting the clock something that we value? Do we really want to know how quickly a student can synthesize and write? Do we want to know on the other hand, what they know and how they can apply their deep understanding?

Strategies to "Beat the Clock"

Frustration caused by being cheated out of demonstrating one's best through the element of time is reflected in the words, "if only I had enough time!" On the other hand, some students develop their own strategies to "beat the clock." They take the offensive stance like Kirk does in his test-taking. Organization of time is a learned test-taking skill.

Let's consider Kirk's narrative again, this time in light of his focus on time, rather than his military maneuvers.

> It was June 19, 1986 9:05 when I was finally settled comfortably at my book to write my Social 30 diploma exam. Five minutes of the allotted two hours had already been expended to scout the essay issues in Part II of the test. I would have approximately one hour and ten minutes to prepare ammunition for the essay while knocking off the multiple-choice. I would tackle the test as I did most others: I would stick to a game plan. My strategy was to complete the multiple-choice within an hour. The next fifty minutes would be devoted to a concise and structured essay. Any excess time would be used to re-examine these multiple-choice that were "starred" on the first go through. If I still had spare time to kill, I would proof read the essay for spelling. [emphasis added]

Sometimes the poor construction of a test makes taking a test within a limited time even more difficult for students, particularly very bright students who are often penalized by lack of time as well as poorly constructed tests. Take for instance the following account by Hoffmann (1964) who describes how such students cope with poorly developed questions on multiple-choice type tests:

> But for testing purposes in real life many questions should be discarded. Many questions are indeed discarded in the long and difficult process of constructing a multiple-choice test. Yet questions survive that are worse than useless; they are, indeed, positively harmful. For example, I am told that on a certain test a question appeared of which is the following gist:
> *Emperor* is the name of
> (A) a string quartet
> (B) a piano concerto
> (C) a violin sonata
> This seems to be a simple, straightforward question. The average student quickly picks answer B and proceeds untroubled to the next question, perhaps feeling elated at being given so simple a test. But what of the superior student? He knows of the Emperor Concerto of Beethoven, but he also knows of the Emperor Quartet of Haydn; and his knowledge puts him at a disadvantage, for because of it he must pause to weigh the relative merits of answers A and B while his more fortunate, less well-informed competitors rush ahead.
> In this particular case the superior student does not ponder long. Two theories occur to him: the examiner is malicious, or the examiner is ignorant of the Haydn work. If this is the first dubious item that he had encountered on the test, he inclines to the second alternative and chooses answer B with little delay.
> Yet even in this simple case he suffers a penalty far exceeding the slight loss of time. For he has been led to call into question both the good will and the competence of the examiner; and this subjects him to a psychological handicap, the severity of which will depend on how faulty or impeccable is the rest of the test. No longer is it possible for him to skim innocently ahead. Instead, he must proceed warily and dubiously, ever alert for intentional and unintentional pitfalls. And whenever he comes to a question for which he, with his superior ability, sees more than one reasonable answer, he must stop to evaluate afresh the degrees of malice and incompetence of the examiner. Such a test becomes for the superior student a highly subjective exercise in applied psychology--and, if he is sensitive, an agonizing one. (pp. 22-23)

Time is a factor in the test. The student must be prepared to compete with the clock to illustrate his or her knowledge of the content. In everyday classroom work, or the real world of work most times we are not timed to the very second. Certainly we must be efficient but there usually is some flexibility in meeting deadlines. But for students, it appears that in many

cases, the rules change at test time. During this time students have to work on "fast forward" as one student described it.

The Dilemma of Too Much Time

Lynette writes:

> The most recent test I wrote was a history exam. I remember it because it seemed so futile. I went to write the exam--the prof was very casual about the whole thing, had me write the exam in the prof's office, partially closed the door and left off saying, "Officially you have two hours but I gave the class as long as they wanted."
> I hated hearing that because that means for an essay exam that you have to write as much as you possibly know about the question because the teacher isn't considering a time limit in marking. So even though I knew all of the answers, I dreaded the thought of having to sit in that quiet office for what turned out to be three hours, writing until my brain and hand were both numb. And of course by the time I go to the last question my opinion that I had to write everything, definitely had faded. Holy relief when that marathon was over!

For many students, T. S. Eliot's quotation, "Time is an enemy of man" (Sharma, 1985, p. 5), is very true. I wonder if students feel cheated in not being able to demonstrate their knowledge and understanding? Most students fight against the clock during tests and plan strategies to keep in control of Time in their effort to show everything that they know. However, some students like Lynette resent an open time limit which the teacher provided believing that she was being sensitive to the student needs; Lynette actually prefers to have a time limit. For most students, however, it was a race against time, against "an honest clock" as van den Berg (1970) describes is one which "is thoroughly complete in its attempt to eliminate time . . . .the rate of the speed of the hands cannot be undone" (p. 112).

Chapter V Summary

"What would happen if we treated the student as someone whose opinion mattered?" (Fullan, 1991, p. 170).

The students' experiences of testing were arranged into categories according to the four existentials of relationality, corporeality, spatiality, and temporality. The fact that the bulk of the stories contained the theme of relationality, this does not suggest, however, that the other existentials were any less real or that they had any less strength. I think we can learn as much about tactful testing from stories that lent themselves to corporeality, spatiality, and temporality as well as relationality.

"Hermeneutic pedagogy . . . requires a giving of oneself over to conversation with young people and building a common shared reality in a spirit of self-forgetfulness, a forgetfulness which is also a form of finding oneself in relation to others" (D. G. Smith, 1991, p. 198). Smith's remarks were significant to me because I had to keep reminding myself step back and let the

students' stories speak, and in doing so I reached a deeper understanding of what they were saying. I had to write down what they were essentially saying and then read and reflect about what I had written as a pedagogue. Once I had done that, I set out to answer three questions that emerged:

1. What do the students' stories mean?
2. How may I view these stories pedagogically?
3. What action can educators take to make life better for students in testing situations?

Question 1 will be addressed in Chapter VI: "Reflecting On Students' Stories About Taking A Test; Question 2 will be dealt with in Chapter VII: "The Tact of Testing and Fair Testing Practice," and Question 3 will be dealt with in Chapter VIII: "Thoughtful Pedagogical Assessment: A Celebration of Learning and Living."

Did I listen to the students' voices pedagogically? And if I did, what did I learn from listening to them?

Overall, testing was viewed as a negative experience. It was unpleasant for diverse reasons. Many students were disappointed in themselves and were particularly disappointed when they could not, by reasons beyond their control, demonstrate their strengths. Students wanted time to demonstrate their knowledge and understanding. The clock and its merciless mocking face was the enemy--the need to beat the clock--not enough time, yet not sure what to write or how much to write when given unlimited time.

From all accounts, nevertheless, students want to do well at school, even though they try to hide that fact, as many do. Many want to think well of themselves, and be well thought-of by teachers, peers, and parents. Those who did not do well on tests for a variety of reasons demonstrated in their writing and conversations hostility, bitterness, cynicism, frustration, powerlessness, and helplessness--or, for some, hopelessness.

Students showed the greatest satisfaction with themselves and the education system when they realized that their hard work was rewarded fairly with good grades. When their marks did reflect effort, they gained confidence in the education system; they were motivated for higher achievement, and their attitude toward school improved.

Many students learned good study habits primarily through trial and error. They found that cramming was not effective and that memorization, while it might "work" for a test, was not effective for long-term memory or deep understanding. Students were not proud of themselves when they crammed for a test only to forget the material the next day or so. They realized that it was wasted effort and time, or "futile."

Students lost a great deal of respect for teachers who gave them "surprise tests," or tests with surprise questions. Students also were frustrated by not knowing the marking criteria in the scoring guide, or not knowing clearly what the teacher wanted. Students on the whole were eager to demonstrate their knowledge and understanding but were frustrated by not knowing exactly what to demonstrate to gain the highest marks possible.

One of the biggest fears for students was being regarded as "dumb." Many students who did poorly hid their real feelings, hid their marks, or deceived others about how they viewed the test. Conversely, most students who did well did not want others to see their marks either, or to know that they

felt that the test was easy. Publicized marks embarrassed good and poor students; poor marks caused shame, while high marks caused pressure to continue the high achievement. Interestingly, the youngest children did not want their low marks publicized, but they did not mind their high marks read out in class.

Another fear and distraction was to be suspected of cheating. A surprisingly large number of students wrote about this issue and how they experienced it. None of the students said they actually cheated, but some struggled with the dilemma of taking that risk.

Competition pervaded most classrooms. As the stakes grew higher, for example, maintaining a high grade point average (GPA) to enter university, or even certain faculties, competition ran high. Students deceived their peers in their competitive spirit in that they lied about the amount of studying they did for the test. At the time of the test many students wrote how they did not want others to have any advantage, for example, not wanting others to get a test paper first and having a few minutes time advantage.

Many students admitted that they did not study sufficiently for the test and yet they feared the upcoming test and receiving low grades. Many left their test preparation until the last minute, saying that they did not like the subject matter, nor did they see it as being relevant or meaningful. Many bright students often did well without studying because as most tests were easy for them, they took the chance that the next test would be easy. Sometimes they were caught out by not studying when the test was a challenging one. Most of the time they passed without putting in a lot of effort.

What motivated students to study? There were a variety of reasons: fear of failing, wanting to please the teacher, needing to feel good about self, pleasing parents, or fearing parents' reaction to a bad grade, for competition sake--to beat their friends, to keep up high achievement, to get on the honor roll, to avoid repeating the course, to "not look dumb," to be exempt from final exams, to acquire money, toys, and so on, and to avoid punishment from parents. Some of the students said they actually studied for the test because they were interested in the topic and studied it for that reason alone, but many said that while they may have enjoyed the subject, they studied primarily to pass the test with good grades.

Students had several concerns. They were frustrated with one-shot tests and tests that carried an excessive weighting, particularly when the test tested trivia. They cried foul and felt that these were most unfair. Students did not appreciate unreasonable test schedules, where several tests were scheduled on one day. At the test time students often were distracted by test administration details, and frustrated by well-meaning teachers who indulged in well-intentioned but nevertheless distracting and irritating behaviors such as offering candies and talking to students during the test. Students were also frustrated by teachers who obtrusively monitored, or teachers who made it known that the students were assumed to attempt to cheat.

Students were struck by the strange atmosphere and behavior of people at test time. They were overwhelmed by the strangeness of a once-familiar place--the gym now turned into a test-writing centre. They were puzzled by their familiar teachers now taking on a strange persona: warm teacher-turned-instrumental; the teachers now givers-of-orders and captains of surveillance.

For example, Kris remarked that his homeroom teacher turned into a different person the day of the finals. He said the teacher walked about the gym in a stiff manner, unlike his usual easy gait. And further, his normal manner of speaking changed to a mechanical monotone when he delivered the test instructions. Kris recalled the moment this way imitating the teacher's monotone:

> It is now 09:02 and you will finish your test at 11:17 sharp! Open the first page of your book. Read the instructions. Do you have any questions? Then if not, you can start . . . NOW!

The previous day, that teacher did not speak like a robot. The students wonder, why is he talking and acting so strangely?

Finally, students in a test-taking situations were plagued with their malfunctioning bodies. For example, they had to contend with excessive perspiring, heavy breathing, heightened perception to the point of distraction, such as being distracted by hearing paper rustle, smelling sweaty gym suits, and being irritated with smells and sounds that they claim continue to trigger negative memories to this day. After reflecting upon the students' stories, it would seem possible that many of the students would agree with Foucault, who held that, "the examination combines the techniques of an observing hierarchy with those of a normalizing judgement. It is a normalizing gaze, a surveillance that makes it possible to qualify, to classify and to punish" (Rabinow, 1984, p. 197).

CHAPTER VI

Reflecting On Students' Stories About Taking a Test

Now that I have summarized the students' stories, my first question is, What do these stories mean? Before I interpret what the students said, I do caution the reader that they are my interpretations and understandings only; that these are "plausible interpretations rather than claims of knowing what really went on in specific situations " (van Manen, 1993, p. 12).

"A minority of students think that teachers understand their point of view, and the proportion decreases with educational level--41%, 33%, and 25% from elementary, junior high, and high school respectively" (Fullan, 1991, p. 171).

Themes Arising From the Text

Several themes arose from the text and I have grouped them under two main headings: Relationality, which includes relationships between students, and pedagogical relationships between teachers and students, and parents and students; and Teacher Expertise. These main headings seem to point to basic principles in pedagogy and are supported by Fullan (1991) in his study of two high schools of over 40 classrooms over a three-year period:

"College or university-bound students were interested in discussing curriculum participation and had many ideas to suggest. . . . These students valued teachers who were fair in their grading practices, knowledgeable in their subject area, and friendly and helpful" (p. 173).

Two basic instructional and assessment learnings we can address from understanding the meaning of the students' stories on testing that are embedded in these headings are the following: To assess (and teach) students fairly teachers must first have a pedagogical relationship with students, and secondly, teachers must be knowledgeable in their subject matter. F. Smith (1986) agrees with these premises:

"The two essential characteristics of all the good teachers I have met is that they are interested in what they teach, and they enjoy working with the learners" (p. 171).

The underlying meaning from the students' stories supports the belief that to teach well the characteristics that F. Smith (1986) cites need to be in place first. Without minimum theoretical and practical knowledge of the subject matter, a teacher with a good pedagogical relationship with children, still would not be considered competent. There occur many instances of this where teachers are required by the school administration to teach outside their subject areas (ATA, 1993). Many of these teachers somehow manage because of their hard work, dedication, and strong relationships that they enjoy with the students. These teachers eventually develop some subject-matter expertise

but there are many instances where the teacher has no alternative but to study the subject matter the day before teaching it to the students. On the other hand, it is very difficult to be a competent teacher even though one might be an expert in the field, without a pedagogical relationship with the students. As an example, a teacher with a strong mathematical background and poor rapport with students, is not uncommon to find. No amount of expert knowledge here will engage students in meaningful and purposeful learning, let alone nurturing a mathematical disposition in students. That teacher, by this definition then, is incompetent. Interestingly, it is the teacher with the strong knowledge of content and poor student relationship that is the more common, but now that Alberta is reducing expenditures in education, teaching outside one's subject area is increasing. While teachers are being laid off, others must step in and fill those shoes. Many teachers who are already overloaded with other extra-curricular duties will be faced with new courses to quickly become familiar with and teach. Noddings (1991) reports that this kind of administrative instrumental reasoning by those who make these kinds of educational decisions works against enhancing caring relations as it has already in the United States.

To summarize, the elements of pedagogical relationship and expert subject matter knowledge are evident in teachers who embody such virtues as dedication, patience, belief in children, tactfulness, subject matter expertise, and so forth. These teachers also have insight into what is appropriate and what is not appropriate for students (van Manen, 1992). Few would disagree that these are the qualities that are at the heart of teaching.

I. Relationality

What then, specifically, is a pedagogical relationship? It is a personal relation that occurs between teacher and student, where the intent of the teacher is to understand and care for the student as he or she <u>is</u>, and for what that student may <u>become</u> (van Manen, 1992) [emphasis added]. This kind of relationship occurs with a reflective teacher who has concern for the students, but not just for the one year he or she has them under tutelage, but for the years thereafter. The mathematics teachers' hope is that the students will understand and respect mathematics not just in their classes, but continue with the mathematical disposition for the rest of their lives. More than being able to remember a specific formula, the students will be affected by the bigger idea--mathematics and its relation in the world, and the students' relation to the teacher and to others of the world.

Philip Jackson (1980) in Fullan, 1991, quoted Henry Adams as writing, "'A teacher affects eternity, he can never tell where his influence stops.' . . . . Other researchers say the obverse is also true. Teachers can never tell when or even if their influence starts, or whether or not it will ever become evident after the student leaves them" (Fullan, 1991, p. 356).

I have broken down the Relationality into three main elements that emerged from the students' stories. The three elements are these: Students Valued Fair Testing Practice, Motivation, and Students Valued Tactful Teachers. As I gathered these elements from the themes of the students' stories, I learned what they valued, and what motivated them to study.

A. Students Valued Fair Testing Practice

Students placed great emphasis on fair testing practice. Intertwined in the topic of fair testing practice students' stories also contained the issue of power and its various forms, for example, a) time, b) grading, c) secrecy, and d) oppression.

B. Motivation

Students cited many reasons to study for the test. They included a) fear of failure, b) avoiding ridicule and shame, c) disappointing parents, and d) punishment. They also studied for e) rewards. These included extrinsic as well as intrinsic rewards.

C. Students Valued Tactful Teachers

Students appreciated caring and sensitive teachers, particularly at test times. They were also quick to point out what did not identify a sensitive or caring teacher, and how this added to an already stressful and frustrating situation.

A. Students Valued Fair Testing Practice

"The drills and tests that pervade classrooms confront students of all ages with tedious, time-consuming and stressful nonsense, rewarding--or punishing--effort with pointless marks and grades" (F. Smith, 1986, p. 53).

Students said repeatedly in their stories that they disapproved of the lack of thoughtful assessment and the lack of effort teachers made in providing appropriate, meaningful, and well-constructed tests that were used for grading purposes. Instead, students were seeking fair teaching and assessment practice. Fair assessment practice is addressed in the document, Principles for Fair Student Assessment Practices for Education in Canada. With reference to fairness, the document states: "Assessment methods should be appropriate for and compatible with the purpose and context of the assessment" (p. 5). Many students did not experience assessment practice in ways that were appropriate or compatible or anything else that could be described as "fair." If a teacher had a good relationship with the student, the issues that the students raised would not have occurred. Yet student after student indirectly wrote about power in its various guises, such as in time, grading, and secrecy. Tactful teachers assess students in a fair and caring way, by constructing authentic tests. It is highly unlikely for a pedagogically oriented teacher to assess in any other way, or to exercise power inappropriately. Tactful teachers construct tests without surprises, tricks, or any other ambiguity that often finds its way into even the most carefully designed tests. These teachers believe in their students and give them every opportunity to demonstrate their

very best. The students in turn sense this, and respond accordingly. There is no mistrust or suspicion here. Van Manen (1991) writes:

> Mistrust or suspicion makes real pedagogy quite impossible. . . . A child who hears or feels an adult say, "I knew I couldn't count on you!" is captured in a relational sphere in which it is difficult to find the right tone. This may produce in the child stealthy glances, a stammer, awkward pauses, a downcast look, or a propensity to be apologetic and to say things the adult supposedly wants to hear. And the adult will find his or her suspicions confirmed. Soon the pedagogical relation turns into one of power and manipulation--a relation in which learning becomes a farce. (pp. 167-168)

Generally, I found that testing was viewed negatively. I kept asking myself as I read, why are the stories that students chose to write about such negative ones? Why are students voicing such anger, frustration, hopelessness, and despair? Did they deliberately write to make such a negative statement? Did they write to show teachers and administrators in poor light? What are they really saying? I believe that this whole issue rests on fair testing practice, which is embedded in a pedagogical relationship. I do not think that one can occur without the other. I noticed that when students did poorly on a fair test, although they were disappointed in themselves, they did accept the grade as something they deserved. On the other hand, many students were disappointed in themselves and were particularly disappointed when they could not, by reasons beyond their control, demonstrate their strengths. They tended to give up trying to do well and treated test-taking as a hopeless case. Students understood that tests were necessary and they valued a fair test, a test worth taking.

Although most students worried about tests and the consequence of poor grades, many students admitted that they did not study sufficiently for the test. Others left it until the last minute, saying that they did not like the subject matter, nor did they see it as being relevant or meaningful. Students' stories revealed that they valued deep understanding as opposed to memorizing trivia. They valued being respected as thinking intelligent people, and did not appreciate being seen as empty heads to fill for the test. The worst thing was having trivial tests weighted heavily. What surprised me was that I know from experience that many students do not seek understanding, they only want to know what is necessary to pass the test. While this still holds true, it is interesting that deep down, some students are interested in meaningful learning and authentic assessment.

It seems that tests of memorization lend themselves nicely to cheating too. Wiggins (1993a) finds that tests that consist of memory/recall questions, and trivia are more likely to encourage cheating than authentic performance. Students who are poor at "trivia -oriented memory" work are more likely to resort to cheating. Combined with not knowing what is going to be on the test, students doubt their ability to outwit the test and learn to cope with this artificial assessment by cheating. Wiggins (1993a) blames cheating partly on the secrecy of the test and meaninglessness of its content:

> Whatever the technical reasons for test security, it clearly does unintended harm to students. Steady doses of such secrecy may well beget a lasting form of student furtiveness in response. Students learn to fear admitting ignorance or being creative. Questionable or imaginative responses, rather than being valued by students as the building blocks of thoughtful understanding, are viewed nervously as potential mistakes. The aim becomes not personal knowledge but figuring out "what they want"--better safe than sorry, though the loss of intellectual autonomy and honesty may be deeply regretted later in life. If by character we mean intellectual courage and moral integrity, then character may well be threatened by tests that are perpetually secret. The legacy of cramming, cheating, and "teaching to the test" may be imitative responses on the part of students and teachers to a sanctioned deceptiveness. (p. 73)

Frequent testing teaches students to become lackadaisical about tests. When students are tested frequently, they take testing less seriously and more often than not, do not prepare adequately. This occurs at all levels of ability, it seems. Because bright students often manage to get by without studying, they take a chance that the test will be easy, or at best geared for the middle ability group. For example, Josephine writes: "We got them (the tests) back the next day and I got a 67%. That wasn't bad for not studying." Nevertheless, sometimes students are caught out by not studying when the test is a challenging one. Most of the time students pass without putting in a lot of effort because the test is geared to the middle ability group.

Students sometimes are given a second chance also when the teacher decides against recording the marks, particularly if the marks are poor. When students do poorly on a test, teachers often give them another test so they can select the better mark of the two. Too many second chances and too many tests encouraged students not to take tests seriously.

The cartoon in Figure 8 illustrates how students learn to depend on second chances. Calvin, the subject in the cartoon, is a procrastinator when it comes to studying for tests or doing homework. Here he is shown getting another chance to complete his unfinished homework:
Figure 8

Cartoon: A Second Chance in Test Taking

OH, I WISH I'D DONE MY MATH HOMEWORK! NOW THE TEACHER'S GOING TO COLLECT IT AND I'M AS GOOD AS DEAD!
WHY DID I DO THIS TO MYSELF? I EVEN HAD AN EXTRA DAY TO GET IT DONE! INSTEAD, I GOOFED OFF AND NOW I'M GOING TO PAY FOR IT!
BOY, I'VE LEARNED MY LESSON! THIS DAY HAS BEEN NOTHING BUT DREAD, AND I COULD'VE AVOIDED IT ALL! HERE SHE COMES! GOODBYE, WORLD!
RRINNGGGG
I'LL COLLECT YOUR HOMEWORK TOMORROW, CLASS.
SUSIE, QUICK, AM I SITTING IN A BEAM OF LIGHT?
LOOKS MORE LIKE A PUDDLE OF SWEAT, MAN!

CALVIN AND HOBBES copyright Watterson. Reprinted with permission of UNIVERSAL PRESS SYNDICATE. All rights reserved.

Power and Powerlessness and the Pedagogical Relationship

> **At the heart of Foucault's analysis is the view that such one-sided practices have been common to all the areas in which we seek to "discipline" humankind (law, military, education, and psychiatry). Foucault explicitly links the judicial and educational "examination," which combines the technique of an observing hierarchy and those of a normalizing judgment. (Wiggins, 1993a, p. 79)**

Tests can be tools to wield power, to discipline and punish; to label winners and losers. Apple (1979) sees this labeling as a form of social control. He continues to say that this process can be deadening even if educators label to "help" students by giving "proper treatment," rather than to punish (p. 136). Apple takes this even further by saying that:

> [T]he process of classification as it functions in educational research and practice is a moral and political act, not a neutral helping act--is the evidence that these labels are massively applied to the children of the poor and ethnic minorities much more so than the children of the more economically advantaged and politically powerful. (pp. 136-137)

Tests in this investigation were used more than to diagnose strengths and weaknesses, or to provide a grade; they were used for purposes of oppression, punishment and social control. Students saw this as being unfair use of the test and they were frustrated by their feelings of powerless in test situations. It was very clear to some students that the test had the power to

label winners and losers, fairly or unfairly. Students knew they were not "dumb," yet if the test indicated this, then it was a forgone conclusion that the test was right. The test had the power to sway opinion; it was legitimate. Apple (1979) argues that when a teacher conceives of a students as "dumb," the child becomes "dumb." In other words, the results of the test, valid or otherwise, can become a self-fulfilling prophecy. Many students' response to the labeling power of tests was to not try to do well--if they tried and still did poorly then they would be seen as dumb. Generally, students could not depend on the test as being a fair one, and they held a lot of mistrust for it.

The test was used as a tool to wield power, such as the power to embarrass students, particularly when grades were announced. Whether they had high marks or low marks, students preferred to keep this information private. High-achieving students were sensitive about their marks being publicized. They were embarrassed because they achieved high marks and "never heard the end of it" if they slipped up and got less than what others expected of them.

"The success of disciplinary power derives no doubt from the use of simple instruments; hierarchical observation, normalizing judgement and their combination in a procedure that is specific to it, the examination" (Foucault, 1979, p. 170).

Misuse of power and manipulation are absent in pedagogical relationships, and yet the students spoke often of the abuse of power that they experienced in testing situations. One of the recurring themes in the hundreds of students' stories that I collected was one that dealt with the experience of powerlessness. Although students don't specifically refer to themselves as "powerless," by what they say and write in their stories, they describe the experience of being powerless.

"Power" is defined by Oxford Dictionary of English Etymology as: dominion, rule, authority, a body of armed men. In the case of the students' experiences of taking a test, students are ruled and dominated by an authority. "Powerless," on the other hand, is defined by The Houghton Mifflin Dictionary as: lacking strength or power; helpless; ineffectual, lacking legal or other authority. Students vividly write about their feelings of helplessness and powerlessness when they take tests. In the case of testing, the teacher is the authority, the hierarchical observer, the normalizer of judgments--in other words, the primary source of power. In these situations the teacher/student relation slides into a relationship of dominance and oppression rather than one of caring. To be always under the watchful eye, the constant gaze, was unnerving for students. They were afraid to move their bodies during the test for fear of being accused of cheating. To remain virtually motionless for two hours with the constant worry of being suspected of trying to cheat was added stress in an already stressful situation.

Students can experience powerlessness in many ways in everyday life, but it seems to be particularly evident in taking a test at school where the teacher uses the test, most often unintentionally, as a form of power. The test content remains secret, a mystery to many--and the teacher is "the keeper of the keys."

> As teachers, such redresses of power must be exercised. Difficult concepts and loaded words should be unpacked by exposing the experience that supports them. As teachers, we need to exercise the virtues of humility, empowering children so that they feel like equals in a conversation. Humility is lost when things are blown out of proportion. Disguises are then taken on, mystification promoted, jargon presented. Teachers become pompous and proud in their display of knowledge. (Pinar & Reynolds, 1992, pp. 170-171)

I found it particularly interesting in my research to see that students, no matter what age they were, had similar experiences in taking tests. Karen writes:

"It's like when I'm going down a roller coaster or something. When I'm going straight down that's how it feels--(laughs)--but my tummy starts to hurt after a while." [frowns]

Lee La, who used the roller coaster metaphor when writing about her science test experience in Chapter V, and Karen, write as though they have no control over their destinies. Karen, at nine years old, is eight years younger than Lee La, and it is interesting how they both describe going into the test taking situation in a similar way. Our question now might be, how can we provide the opportunity for students to show their strengths? Students have railed against the unfairness of tests. Unfair tests don't provide sufficient time for them to demonstrate what they know. Unfair tests only provide a limited way for students to demonstrate what they know, for example, when the teacher limits the testing time, or limits the test formats to a multiple-choice test.

When the teacher has a pedagogical relationship with the student then power is not evident, or even necessary. There is no need for mysteries or ambiguities here. This keeper of the keys has no need to be pompous to gain respect. Knowledge is power, but knowledge is also shared. Shared knowledge is shared power.

Physical Effects of Power and Powerlessness

Many students like Saphire experienced the physical effects of powerlessness and recognized their powerless state. In this instance Saphire sensed that she is going to be short-changed by an unfair test and she begins to panic. Her panic makes her dizzy. She becomes aware of noise and people all around her and this interferes with her abilities to do her best work. If she knew for certain that this test would be a fair trial, she may not experience the panic. Saphire suspects that she is going to be tripped up somehow on this test, but she's not sure where or how. The "not knowing" causes panic. The adrenaline flows as she prepares for the test. Adrenaline should flow when we are up to perform in some way or when we take a test; however, usually there is the expectation in the real world that the test, whatever it may be, is a fair test. The result of the test should reflect the preparation and the capability of the student.

Some tests do reflect the preparation and abilities that students put into a test, such as performance tests used in athletics. The athlete, like the science student, must physically as well as mentally get up for the game. But are athletes deliberately tripped when competing in sprints, for example? A deliberate trip by an opponent guarantees disqualification for the guilty party similar to a foul in the basket ball game. The player has an opportunity for a free throw if an injustice has been done to him or her. While these performers may experience tension and nervousness, they don't experience powerlessness as Saphire does. Basketball players know that every effort is made to make their "test' a fair one. They have referees to ensure fair play. But who is the students' referee? In the case of school examinations, referees are sadly missing. Little wonder students panic at test time and feelings of despair and hopelessness overcome them. They're in this event on their own.

To summarize, students merely want to demonstrate accurately their knowledge, understanding, and skills, and they want to be recognized for their efforts and given authentic feedback that will help them improve. It seems that the assessments set up for them make it very difficult for students to do that. Some students say tests are set up to deliberately trick them. This is far removed from Wiggins' (1993a) belief that good assessment is one which "Allows the performer to perceive a specific, tangible effect of his or her efforts, symbolized by an apt score" (p. 199). Saphire, like many students, did not perceive any of those rewards for her efforts.

Forms of Power

The students' stories illustrated clearly that teachers and administrators, and even parents, exercise various forms of power through the test. Power occurs in testing in a variety of ways, for example through time, grades, and secrecy of test content.

a) Time is Power: Students felt the power of the clock and fretted over it Students felt an overwhelming sense of lack of control, hopelessness, and despair as the minutes ticked by. Time was easily one of the most obvious causes of grief for students and certainly one of the most common.

Time should not be in control when a student takes a test--the student should be. Students like Saphire who is already confused by the unfamiliar questions on the test, now is confronted by menacing Time. At the beginning of the test, Saphire writes, "I look for the clock for the time." Saphire respects Time. Not paying attention to Time can mean failure. The time limits imposed on students have little meaning or purpose, so why are they included? Do we want to test the speed at which a student can write an essay or how well? For many students who need more than the allotted time, the clock ensures failure.

"Where did the time go?"

It seems that Saphire must reach her destination within a designated time limit. This seems rather absurd. It is highly unlikely that this situation would occur in real life. Why, then, do we set students up like this in test situations? An obstacle such as a time limit put in the way of well-intended students does not seem to make sense.

The bureaucratic scheduling of the test is a form of power. Rarely do the students have a say about when or where a test should take place. Usually

instrumental reason decides the date and time, and--ready or not--they write. This is similar reasoning to the actual time allotment. Often the test must be written in a regular class period or within the time that a teacher or someone else mandates. Most often not enough time is allotted and the test loses its original purpose; instead, the purpose is distorted to finding out how much students can physically write in the limited amount of time. This seems hardly a valid curriculum objective.

b) The Power of Grades:

> At the heart of such systems of surveillance, Foucault argues, are two central principles: normalization and hierarchy. Normalization, or normalizing judgments, involves comprising, differentiating, homogenizing and excluding people in relation to assumed 'norms' or standards of what is proper, reasonable, desirable and efficient. Hierarchy involves a process whereby power is exercised through "a mechanism that controls by means of observation" where the powerful observe but are not themselves observed, where they see without being seen, where they judge, rank and rate, but are not themselves evaluated.
> Few processes, Foucault suggests, represent and embody this convergence of the principles of normalization and hierarchy more clearly than the examination. (Hargreaves, 1989, p. 134).

Recall Saphire and her despair at being labeled unfairly:

> Well the second hour passes and I finish with uncertainty. I think to myself, "That test wasn't really hard. I could have done it no problem--if I had control." Exams aren't fair. I'm a good student, but this mark will just say,
> "I'm stupid. . . ."

Although Saphire has not been given the opportunity to show her true colors, the fact remains that this test will identify her as an ill-prepared student. Her story has turned sour. The once exuberant Saphire is left deflated and betrayed. The indelible grade is regarded as the true indicator of her performance and capability. Saphire knows how far from the truth this grade is. The highly regarded grade is once again more authentic and powerful than Saphire's invalid performance. No-one will believe her--but they will believe the grade that says she's "stupid."

Grades and test results are not only used unfairly in "normalizing" or labeling purposes, they are also sometimes used as rewards or punishment, which are other forms of power. Withholding grades, or announcing grades to the whole class without consulting students are punishing activities.

The announcing of grades is an issue for students. It is seen as a punishing activity for achievers of both low grades and high grades. Both high achievers and low achievers cringe at the announcement and seem to prefer this to be handled privately. Grades reveal what has been kept hidden. Once students' secrets are exposed, they experience shame; shame of poor grades, or

shame for deceiving their peers by studying and achieving high grades. The announcement of grades can cause extreme distress for some students. A news item reports: "Depressed over grades, student holds police at bay over eight hours. Inspector Denis Lush concluded that 'He [the student] was fairly depressed about his grades'" (Depressed over grades," 1993, p.1). This seems an understatement. Surely grades should not hold so much power.

However, grades can be problematic for teachers too. Many teachers lament that if only they could teach a course without assigning grades then the constant question of "Will this count?" would be eliminated. Students would then relax, learn and enjoy the content material more if they weren't so obsessed with their grades. According to Adams (1980), the assigning of grades is the aspect of university teaching which most inhibits metaself education. Testing is a form of "gatekeeping" where grades control the entrance requirements for universities or grade school promotion. The function of testing then is more than diagnostic and this is where the conflict of grading is felt by all teachers at one time or another, and "chronically by those concerned with metaself education" (p. 135). Some teachers in frustration have even gone so far as to eliminate grades, but with mixed results. It seems that our society is not ready for this yet, and as long as tests are used for gatekeeping purposes I doubt if it ever will be. For many grade school teachers and university professors, the assigning of grades is an exercise in frustration. Take for example the following anecdote from Adams (1980):

> One professor of social sciences at a large state university decided to do away with grades in an introductory course of 250 students. He announced at the beginning of the course that every student would receive an "A" grade, regardless of performance and class attendance. His hope was that removal of grade pressure would encourage students to pursue their interests in the course free of coercion, and that they would be able to interact with him authentically, without the status discrepancy that "giver of grades" bestows on the teacher. Immediately about 200 of the students were never seen again. He persevered with the remaining 50 but because they did not receive any reward or praise, they soon left. Of the remaining 15, the teacher later said that only five were actually interested in discussing the issues of the course, the others being "merely so compulsive that they could not bring themselves to accept an 'A' without having suffered a little." In the end the teacher concluded that the experiment had not been entirely successful even with the five earnest students. (p. 137)

Yet students are aware of other conflicts too. Competition over grades becomes the primary concern rather than the acquisition of knowledge and skills. University student, Charlene, explains it this way:

> I feel like I'm competing against many others for marks.[when] you are literally fighting for grades [it] is very stressful. This is due to the fact I am not being tested on what I know; I'm being judged against others.

While we continue to use grades this way as powerful tools for labeling winners and losers, ministering rewards and punishment, students will continue to learn to learn for the grade.

i) Abuse of grades and test results: The focus on grades is a far cry from what tests are meant to be used for: diagnoses of strengths and weaknesses and to a lesser extent, for determining a grade. Much has been written about authentic tests, what they are, how to construct them, and so forth, but what has been missing is the authentic, or perhaps better, the moral use of the test results. It has been assumed by many people that tests have been used authentically, but many times they have been used for other purposes. It is not only students who suffer the abuse of the power of test results. Test results of the Achievement Test have been abused. This was not the intent of Alberta Education (Alberta Education, 1993a). The results are publicized and teachers take the brunt of public outcry if their school jurisdiction's results are not so high as a neighboring jurisdiction, never mind the differences in clientele. Who holds the power here? Certainly not the teachers. Test results and grades hold power over educators and students.

The cartoon in Figure 9 illustrates the acknowledgment of the power the teacher has over the student. The student knows his fate lies in the teacher's hands and is willing to try any tack to get a good grade. I found several cartoons on this very same idea, that teachers need to be bribed to give good grades.

Figure 9

Cartoon: Bribing the Teacher for a Good Test Mark

"If I get a good mark, you could be looking at a very nice apple tomorrow morning."

HERMAN copyright Jim Unger. Reprinted with permission of UNIVERSAL PRESS SYNDICATE. All rights reserved.

ii) Cheating: Many students wrote about cheating, in fact more than I had expected. It seems that if students are assumed to cheat, and they are by many teachers, students may be more likely to cheat or at least think about it. There is a lack of trust between teacher and student. Many students in the investigation believed the teacher thought he or she was cheating, and the teacher often warned the students ahead of time about cheating. In addition, teachers demonstrated that the students would likely cheat by re-arranging the classroom. This lack of trust is very evident in schools between teachers and students. Bollnow (1989, pp. 40-41) believes that trust is a reciprocal relationship. He holds that if a teacher shows distrust, then the student will more likely be untrustworthy. And students do seem to live up to the teachers' expectations.

In my research I found that students are not alone in cheating, either. More than ever before with the emphasis on school accountability, students' test results have an impact on teachers too. It has been documented in some areas that teachers, like students, are rendered powerless by the test, and some teachers have been forced to behave in ways similar to some students. For example, when the test stakes are high, some students, as was evident in their stories, consider cheating, and similarly, when some teachers are in the same predicament, they consider cheating too. Aiken (1991) reports:

> As test scores have become more important not only in determining the future educational and professional careers of individuals but also in the political arena for assessing schools and other institutions, the temptation to cheat appears to have increased. . . . The fact of tampering by teachers with students' answer sheets could not be convincingly denied, but the question was, why did they do it? The general answer seems to be that test scores have come to be used so extensively in our society not only to evaluate individuals but also schools, school districts, states, and even neighborhoods, (e.g., real estate agents often cite high test scores in their sale pitches!) that the pressure on teachers and schools to show up well is enormous. (pp. 733-734)

Some parents try to "cheat" too. According to some principals, parents frequently feel the need for the student to earn Rutherford Scholarship money which is based on an 80% or better average during each high school year. For example, teachers are often "asked" to raise the school mark as high as necessary in order to absorb a potentially low diploma exam mark which will subsequently result in sustaining a high average (marks on diploma courses are determined on the basis of a 50-50 weighting of school and diploma exam marks). Some parents will even pressure the school to raise the school mark, <u>after</u> they have received the diploma results--a practice which could be construed as cheating, or at best, unethical.

Teachers do what they can to survive and no-one is laying blame here; the power of the test does make people behave in ways that they normally would not. I have witnessed anxious teachers pass their anxiety about the impending test on to the students, and caused students to become visibly upset. The students, particularly young ones, do not understand the importance of the test from the teacher's perspective and why the teacher is under stress and behaving in such a strange manner.

c) <u>The Power of Secrecy</u>

> The euphemism 'secure test' hides the fact that an always morally questionable practice lies at the heart of testing as we know it. By using the word <u>security</u>, we imply that we have a property that needs to be kept safely in our possession, as a fundamental right. . . the secure test reflects a form of unilaterally exercised power that cannot be examined

> or easily contested by the test taker. . . . Due process is threatened when any "judge" does his or her work in secret. (Wiggins, 1993a, p. 74)

Saphire writes:

> I read the first question. "O.K.--I know this one. Wait! These multiple-choice answers weren't anything like what I thought!" I try the second. I can't concentrate. That first one threw me off. "Help!" I scream in my mind. "Why can't I do this? I should be good at it! It's my favorite subject!"

Saphire expresses her confusion and frustration--what are these strange response choices? Wiggins (1993a) calls such responses like the multiple-choice response choices, technically known as distractors, as one of several "forms of deceit" (p. 117). Saphire would no doubt agree. For Saphire the confusion that these "forms of deceit" causes could be compared to her having the wrong road map to a strange country. Nothing is familiar. Where are the signposts? Here they are but they don't match the map! Saphire experiences betrayal. This isn't anything like the test she prepared for!

She is losing confidence rapidly now. Everyone is finishing but her. What's the matter with her? She doubts her own ability. Strange--earlier she'd been so confident. It just seemed logical that she should enjoy this test because she had done her homework. The tables have suddenly turned. Saphire is bewildered. The test isn't really hard, yet in student terms, she's going to "blow it." The feeling of powerlessness and lack of control interferes with her performance. This isn't her best performance at all. Saphire's performance on this test will reflect a student who has not prepared--and that is not the student who is writing this test! It isn't her fault she is unable to demonstrate her knowledge and understanding. For Saphire this test is not valid or fair; it is an exercise in futility and frustration.

And why does it turn out this way? The format, test content, and scoring guide criteria were a surprise--a secret, until the administration of the test. Secrecy is another form of power that is prevalent in test situations.

Secret is defined by Oxford Dictionary of English Etymology: "To keep from knowledge or observation; and The Houghton Mifflin Dictionary: Concealed from general knowledge or view; kept hidden; known or shared only by the initiated; beyond ordinary understanding; mysterious."

Many stories tell of the concealment of the test content, scoring guide criteria and the mystery of what is expected. This is kept hidden from students and it is a major cause of anxiety for them. Anxiety gets in the way of doing one's best and yet tests are set up to cause anxiety when the mystery of the test prevails. The students must somehow by good luck or quick wits read the teacher's mind and write what the teacher wants. This can be likened to interpreting parables, or riddles. In the New Testament, the correct interpretation of parables was meant only for the "insiders," the apostles (Kermode, 1979, p. 2). Speaking to the Twelve, according to Mark, Jesus said,

> To you has been given the secret of the kingdom of God, but for those outside everything is in parables; so that they may indeed see but not

> perceive, and may indeed hear but not understand; lest they should turn again, and be forgiven (4:11-12). (p. 2)

In other words, only insiders can have access to the true meaning of these stories. As in testing, when this occurs, students feel out of control, powerless, and frustrated in that they cannot show their knowledge, understanding, and skills fairly. In the investigation, students like Saphire begin to feel that they are not in control of their destiny. In her case, the impact of unfamiliar multiple-choice responses throws her off-guard. This is not going according to script! I know my stuff! Who is in charge here? Certainly she isn't!

Students' accounts of test taking tell me they spend considerable time second-guessing what will be on the test, and once into the test, guessing what response the examiner wants to the test questions.

Students are at the mercy of their professor's whims, inclinations, tricks, and secrets. What right has the professor to have so much power over students? For students this is quite unfair, and yet everyday in some classroom somewhere this kind of testing is carried out.

Wiggins (1993a) citing Bok addressed the unquestioned rights of secrecy and what they mean: "When power is joined to secrecy, the danger of spread and abuse . . . increases" (p. 78). Wiggins goes on to say that it should not be assumed that no one person or group should have unilateral power to control that which is kept secret. However, the problem is that this assumption falls apart when we deal with children or others who are deemed "inferior" to us in terms of rights. These are the people who have no voice; those who cannot speak up for fear of further injustice or reprimand. Intentionally or not, it seems that some educators abuse their power by keeping secret the test constructs and content. For what purpose? Surely if one tests to find out what a student knows and can do one would supply the test blueprint and scoring guide criteria? Not knowing the test content up front is like giving a pianist a test on a piece of music she hasn't seen before. We can learn something of the pianists sight-reading ability but it is not a true test of <u>practiced</u> performance. It all depends on the purpose: Are we testing for practiced performance, or sight reading?

Wiggins (1993a) wonders what <u>really</u> are we testing by relying on so much secrecy Further Wiggins asks:

> What educational values are at stake with (and perhaps threatened by) the persistent use of such secrecy by adults with children? To what extent might even a form of secrecy in testing that is defensible on technical grounds <u>inherently</u> threaten teacher-student and student-subject relationships--with all that such a threat implies for the potential harm to the student's faith in the school, its agents, and its standards? (p. 89)

It seems that test secrecy has little merit and is something that needs deeper consideration if we want to administer meaningful tests. Wiggins (1993a) adds: "Thoughtful and deep understanding is simply not assessable in secure testing, and we will continue to send the message to teachers that simplistic recall or application, based on "coverage" is all that matters--until

we change the policy of secrecy" (p. 92). Judging by the amount of memorization students wrote about for their tests it seems that most of the tests did not consist of questions that required deep understanding or application.

The cartoon in Figure 10 illustrates the mindless memorization that is evident in so many tests:

Figure 10

Cartoon: Tests of Memorization

SALLY FORTH
HILARY'S SPELLING TEST IS TODAY, TED. CAN YOU GIVE HER ONE LAST RUN-THROUGH?
SURE.
READY? "EROSION."
THAT'S NOT THE FIRST WORD, DAD. HOW CAN I SPELL THEM IF YOU JUMBLE THEM UP?
YOU ONLY KNOW THEM IN ORDER?
I DON'T KNOW THEM, I MEMORIZED THEM. NOBODY SAID ANYTHING ABOUT HAVING TO KNOW THEM.

"Reprinted with special permission of King Features Syndicate"

d) Testing As a Form of Oppression: Finally, we arrive at the point at which the test can be perceived as a form of oppression by students. According to Houghton Mifflin, oppressive is defined as: difficult to bear, harsh, tyrannical; causing a state of physical or mental distress. Students spoke of all these adjectives and phrases in their stories. Various factors contributed to this but it does make one wonder if all these negative experiences are really necessary to find out what students understand. Surely there are better ways to assess students! Tests continue to become the vehicles for punishment and the wielding of power. The supposed purpose of tests: to find out what a student knows, understands and can do so that both teacher and student can together celebrate strengths and diagnose weaknesses, and set goals for further learning, is lost.

B. Motivation

Clay:

"When test days come I don't feel any different because I get the same mark on every test--around 40%--if I'm lucky."

What motivated students to study? Students studied to avoid unpleasant situations, for reasons of fear, and for rewards.

1. Avoidance Tactic:

Students studied to avoid teacher and peer ridicule and shame, to avoid displeasing teacher and parents, to avoid punishment from parents, to avoid

failing for practical reasons so they would not have to repeat the course, and to avoid the final exams through exemption.

2. Fear:
Students feared failure, and teacher's, peers' and parents' reactions to the student's grades.

3. Rewards:
a) Extrinsic: Students studied to please the teacher and parents; they studied for tangible rewards such as for money and toys; for the sake of pride, for example, to keep up high achievement, to get on the honor roll; and for other competitive reasons, for example, to beat their friends' marks.
b) Intrinsic: Students studied because they needed to feel good about themselves and demonstrate their knowledge and understanding, and to prove that they were "smart."
The most powerful need to study was to avoid shame. Students from the age of eight years to adult had an overwhelming sense of shame if they achieved low marks. While the young children believed that they just needed to work harder to avoid shame, older students knew from experience that that tack did not always work either.

C. Students Valued Tactful Teachers

"Relation with others is not one of perception but of care"
(Heidegger, 1962, in Berman, Hultgren, Kee, Rivkin, & Roderick, 1991, p. 24).

Students felt they were treated instrumentally--that they did not count. The test was done to them. They were objectified. Apple (1979) argues that "educators have developed categories and modes of perception which reify or thingify individuals so that they (the educators) can confront students as institutional abstractions rather than concrete persons" (p. 133).
Students appreciated being treated as individuals and appreciated thoughtful administration of tests, for example, good organization, good physical conditions, adequate ventilation and comfortable temperature in the room, as well as an environment that was distraction-free. Once the test was administered, students appreciated their needs being met, for example being given opportunity to clarify questions, and by requesting more paper. They appreciated teachers who remained human, and were puzzled and made to feel uncomfortable by those who became strangers overnight. These normally trusting teachers seemed to have a different attitude about students at test time. Students resented that it was an expectation that they would cheat and that they were treated as potential cheaters. Students like Gerri, appreciated the thoughtful teacher who acted in the best interest of the student when he or she was in need. These are the kinds of teachers that students remember and learn from.
Finally, once the tests were marked, students appreciated the tactful returning of grades and papers. Stories about the tactful returning of grades and papers were rare, however.

Summary of Pedagogical Relationship

Pedagogically speaking, what is appropriate testing? If we listen to the students they will say they want a fair opportunity to demonstrate what they know, understand and can do. They can't begin to do this unless they know the target up front, and the criteria for assessment (Wiggins 1993a; Principles, 1993). It takes little effort on the part of the teacher to let them become familiar with the test and question format; in other words, no surprises on the test (Maeroff, 1991; Wiggins 1993a). What is the point of having a student learn French and then give him a test on Greek? Or give someone a road map of France to use in Chile? It doesn't seem morally right or sensible not to provide the signposts.

The pedagogical relations mean trust. Students trust teachers who are comfortable with themselves and do not need to use power to make them feel good about themselves. The teachers that students trust are ones where the students know that the teacher is not deliberately setting snares to catch the student unawares. It means that the teacher is genuinely searching to find out what a student knows and can understand so that he or she can build instruction on this information. The teacher helps the students to do their best on the test. The students who know that the teacher is supportive, is more likely to be at ease enough to actually demonstrate their best.

Journal Entry January 28, 1994:

The test is next week and the students are very worried about it. I don't understand why. They have the test blueprint and they know I practice what I preach about fair testing practice. But here they come daily into my office looking for reassurance that the test is really going to be on what I told them. I can't believe the way they're behaving. A lot of these students are well into their twenties and they're as apprehensive as high school students. They try to get clues about the test and all I can do is refer them to the blueprint. "I have no other clues!" It all seems so obscene the way these intelligent students beg for clues about their upcoming test. They should know that there are no surprises on the test in any form. The blueprint included the number of questions on the test, weighting of each question, question content, and taxonomy for each question. There was no time limit to write the test. Even with all this information, I suspect because of their prior inappropriate testing experiences, they're nervous and suspicious about the test. "What's the catch?" they seem to wonder.

The Power of Grading

Like a vulture
the old professor
poises over me
smiling
then cuts and tears
my ideals
severing my values
and grades me
according to
the amount of me
that is him.

Patti Armstrong, 17
(King & Ranallo, 1993, p. 327)

II. Teacher Expertise

Students clearly appreciated well-versed teachers in their subject matter who constructed worthwhile and meaningful tests, or "tests worth taking" to quote from Wiggins cited in Brandt (1992, p. 35). Students respect these thoughtful and challenging tests in which they are able to demonstrate their knowledge and understanding.

Teachers who know their subject matter exude their subject matter. They live it, embody it, are interested and animated by it. Students do not need to be convinced about the authenticity of the teacher's interest in the subject matter. Students pick up the teacher's excitement, embody the subject matter themselves, and quickly become engaged in the meaningful instructional and assessment activities that the teacher provides. It is almost impossible not to be touched in some way by the enthusiasm that the teacher has for his or her subject matter.

> *Journal Entry April 7, 1994:*
> *It's not all that difficult really to describe a teacher who has expert knowledge, and what that means. What it's like to live it, embody it, be animated by it. I just have to think how I feel about assessment. I can't talk about it in any other way other than enthusiastically, although I didn't ever consider myself to be an "expert." Jane O'Dea commented only just last week how so articulately and passionately I spoke about assessment. I realized then that yes, I am assessment; I am what I teach, just as she is a feminist, and is what she teaches!*

When teachers embody their subject, they also instruct and assess their subject matter authentically because they have a thorough understanding of the subject matter, and they know what is relevant and meaningful to assess. Students appreciate and respect well-written tests and are frustrated by "one-

shot" tests. Wiggins (1993a) has noted that "one-shot" tests only really illuminate memorization rather than understanding:

> A one-shot, secure test in which the student is neither required to produce a work-product and not engage in discussion is unlikely to tell us whether the student has understanding or not. Correct answers can hide misunderstanding; incorrect answers without opportunity to explain oneself, can easily hide deeper insight. (p. 9)

A. Students Value "Tests Worth Taking"

What are tests worth taking? They are tests that are fair, meaningful, and well-constructed, and written by teachers who are well-versed in their subject. Students respect thoughtful and challenging tests where they are able to demonstrate their knowledge and understanding. But too many tests are not well-prepared. Too many tests are low-level trivia tests, ambiguous, objective and short-answer. Students who are fed a steady diet of these kinds of tests, and tests where sometimes the grade is used and sometimes not, depending on the outcome, learn to take the chance and not study for them. Too often students have been given tests where they have been able to bluff their way through because the test was poorly constructed and consisted of easy recall questions. And too often the standards for passing the test have been set too low just too many times and students take a chance on getting by once more. Perhaps too often the subject matter is just too uninteresting, not meaningful and engaging so that students put off the studying exercise until the last minute and then find there is no last minute left.

B. Students Do Not Value Tests of Memorization and Trivia

Memorizing trivia and the vaguest or most obscure of material does not have pedagogical merit. Recall how Marg, along with many other university students, shared this frustration when she said after all that studying, all she would be required to remember and do would be to index through all the "mindless temporary sets of facts to think of some irrelevant word from page 63 and what it means!" Students must be perplexed about the intentions of the examiner. They surely wonder, "Why is the examiner asking such trivial questions and for what purpose? What a waste of time!"

Chapter VI Summary

In testing situations in particular, students are objectified in that the test is done to them. Students are often treated as powerless objects who are to perform well on an unknown task within a time limit. Surely this is not the real world! But, students seem to accept this objectification without protest. Students accept the hierarchical observation and the normalizing judgment; the expectation that they will cheat; that the grade has the last word. Are they worn down, believing it easier to jump through the hoops than to protest? Perhaps students just don't consider any possible alternative--for them it doesn't exist because tests, have been, and will always be that way most likely.

Apple (1979) speaks of this kind of power as part of the "hidden curriculum" that is evident in schools, and one that is still perpetuated. By the time students are in Grade 10 they know the rules. By university level they play them well--they have learned how to succeed this way in grade school so it certainly must work in university and they're right. Here, for example, they realize it's often in one's best interests to accept an undeserved bad grade than it is to appeal it. Appeals for students are known to be a losing situation for them; they feel they are powerless. Positive stories, when they rarely appeared, still had some negative connotations. Testing, for many students, is more painful than I had ever imagined.

Ideally, students will believe that the examiner wants them to have every opportunity to do their best. Students must experience care in the test situation so that they have the opportunity to share their understanding with their teachers. Students have expressed what is like to prepare for a test, take the test, and receive the test results; they have told about their fears, their anxieties, their humiliation and shame, their frustrations, their successes--and their lack of voice. Ultimately students want others to think highly of them; they want an opportunity to show their strengths. They want the truth. A fair test will allow them to demonstrate that. By carefully thinking and reflecting about what the students say about tests, educators will be given direction in constructing meaningful and authentic tests--or "tests worth taking." Such tests are appropriate and "test friendly," so that educators can detect the strength of that rope and enable students to illustrate the "real me." When students know the test scoring criteria, the weighting of material that is to be tested, or the test blueprint, only then can they demonstrate their strengths.

Now that I have gained a deeper understanding of what it is like for students to be tested, it seems clear that we educators have much work to do in re-educating the public, the parents, the administrators, and finally some of the teachers, about the real purpose and appropriateness of testing. The research revealed that if we value student work and progress, we certainly must evaluate fairly and at appropriate times; we owe the students the right to celebration. But above all, what we must do is construct fair and authentic tests, administer the test in a pedagogically tactful way to capture the true picture of the student. D. G. Smith (Aoki 1977b) expresses best this need in the following text:

> Whenever we see a picture of ourselves taken by someone else, we are anxious that justice be done to the "real me." If there is disappointment, it is because we know that there is so much more to the "real me" than has been momentarily captured by the photographer's click. So too with this assessment: there are deeper and wider dimensions to the total subject than can be justly dealt with from such a hasty glance. Any ensuing dissatisfaction should not be taken as a measure of the assessment's failing but as a testimony to that crucial vitality of the subject that eludes captivity on paper. (p. 49)

CHAPTER VII

The Tact of Testing and Fair Testing Practice

"The end of phenomenological research is to sponsor a critical educational competence: knowing how to act tactfully in pedagogic situations on the basis of a carefully edified thoughtfulness" (van Manen, 1984, p. 36).

Thoughtful Assessment

Pedagogy is a sensitive thoughtfulness--a tact. Pedagogy is difficult to observe, like the relationship of good friends. There are no real rules to be a friend. There may be some basic principles but by following a step-by-step guide-book on rules for friends does not automatically help you make friends. It is similar to the pedagogic relationship. Pedagogy is not identical to observable action; rather it resides in that which makes the action pedagogic in the first place. Post-modernists would say that pedagogy is neither the body nor the heart. Pedagogy is wondering and questioning, always asking, "What is this situation or action like for the child?" "What is good and not good for this child?" (van Manen, 1990, p. 145).

Tact, in the pedagogical sense, according to van Manen (1991) and in the context that I use it, is more than just saying the right thing at the right time to keep up good relations. Tact is more complex than that. Tact requires a person to be sensitive, understanding, and perceptive to others; it means having empathy and being able to interpret and understand another's feelings; it means knowing the limits of a situation, for example having a sense of what distance to keep in individual circumstances; and finally, tact seems to be characterized by moral intuitiveness and the ability to see through other's motive. A teacher with tact knows what it pedagogically right for the child at a particular moment. In van Manen's words, "Pedagogical tact manifests itself primarily as a mindful orientation in our being and acting with children" (1991) p. 149).

In Chapter VI, I interpreted the stories to capture their meanings, and to understand the students' points of view. The students spoke strongly about the many aspects of test taking. Sadly, it is here where most research stops. We listen, but we do not act. Knowing what we now know, we do not ask, how can I do the right thing by these students? We listen to the student's voice, but somehow we forget to address the student's concerns--or what the student is really saying. Grennon Brooks and Brooks (1993) agree: "Valuing students' points' of view means not only recognizing them but also addressing them" [emphasis added] (p. 61).

My next step now is to address the meaning behind the students' points of view. To do this, firstly I will illuminate the meaning of the students' stories, and secondly, I will address ways teachers might tactfully deal with the students' meanings of their testing experiences.

Initially in this research I agreed, as I still do, with the statement by Brimfield et al. (1983), "I am not untouched by or detached from the process and the product of my research. Therefore, I must engage in research with an

appreciation of the fact that I shall emerge from it slightly changed as a person" (p. 14). I realized at the time that I would gather more understanding and knowledge about students in testing situations, but I was not prepared for the impact that the students' stories had upon me as my journal of March 18, 1994 affirmed. Not only has this research changed much of my thinking in assessment but it has made me focus on the importance of the relationships between the student and the teacher, particularly in testing situations. Had I been so de-sensitized by writing, constructing, and administering so many tests all those years I wondered? Had I been just as instrumental in my thinking and behavior as the teachers of whom the students spoke? I have been very much re-awakened and attuned to the students' points of view in testing now, so this chapter which was initially conceived as a rather instrumental "how to" set of recommendations for developing and conducting appropriate assessment, has now become my "test wish list" for teachers engaged in constructing and administering tests. Teachers often forget to consult students for their ideas in learning and curriculum and I was rather apprehensive about using my students' ideas for my dissertation as is evident by my letter to one of my supervisors:

April 12, 1994

Dear David

I'm wondering about my "test wish list." While it is authentic, is it "sophisticated" enough to use in my dissertation? The significance of it is that my students came up with the idea of creating a test wish list in class last year. I thought it a great idea, and we went ahead with it in the following class. Now that I look back at what the students created, I notice that they came up with similar principles to those which are documented in Principles for Fair Student Assessment Practices for Education in Canada. Isn't it interesting that that document took a working group of several "experts" from across Canada to compile? Our wish list was the accumulation and sharing of humble thoughts and reflections by undergraduate students who had experienced taking tests. Is this a valid enough reason for my taking the students' lead and including theirs and my wish list in the dissertation? Am I taking this listening and responding to students' voices too far? Direction please!

Students Valued Fair Testing Practice

How can teachers act tactfully to ensure fair testing practice? Firstly, "[A]ssessment methods should be appropriate for and compatible with the purpose and context of the assessment" (Principles, 1993). There are many ways to assess student progress validly, and depending on the purpose, the teacher should select the appropriate way. Not all tests therefore should be objective-type tests such as multiple-choice. I know, as do other educators, that some students do not do well on certain forms of tests; some do well on multiple-choice, others do not, and similarly for performance-based assessment, oral reports, and essays. Some students "freeze" when they have to do oral reports, while other students are in their element and romp through the test. This is not to say that students should not take tests in which they cannot demonstrate their understanding perfectly. Students should be given

the opportunity to use a variety of assessment techniques so that a more valid assessment can be inferred. This is supported by Principles (1993): "More than one assessment method should be used to ensure comprehensive and consistent indications of student performance" (p. 6).

The following is a short summary under pertinent headings of the students' principles for fair assessment practice that evolved from their stories of test taking. After each summary is my wish that also evolved from the interpretation of the students' stories of their experiences of taking tests.

Students' Principles of Fair Testing Practice

1. Variety of Assessment Tasks

A fair test is a valid test and measures what it purports to measure. Students wish they had more kinds of these tests. Often the tests that the students spoke of were those that did not capture the students' understanding in the subject tested. Students like Saphire had invalid inferences drawn about her because of her unfair test. Principles (1992) states: "Assessment methods should be developed or chosen so that inferences drawn about the knowledge, skills, attitudes, and behaviors by each student are valid and not open to misinterpretation" (p. 5). For example, if teachers want to assess students' writing skills, teachers would give the student an essay to write, not a multiple-choice test. That way the student has a meaningful context in which to exhibit strengths and weaknesses.

Variety of Assessment Task Wish

My wish for students is to have teachers provide a variety of assessment methods so that students can have a fair chance to demonstrate what they know, understand and can do.

2. Authentic Assessment in Context and Aligned With Instruction

One of the students' concerns was the irrelevancy of the test to what was taught in the course. The test was a complete surprise. Students found these tests most unfair and frustrating. A fair test has no surprises. There are no secrets. The teacher is very clear about what will be on the test and the test is aligned to the curriculum. To ensure curriculum alignment is to plan the assessment design at the same time as planning the instruction. Assessment then guides the teacher with the instruction, providing authentic feedback of students' progress. It then becomes part of the process of instruction. According to Principles, (1993), "Assessment methods should be clearly related to the goals and objectives of instruction, and be compatible with the instructional approaches used" (p. 6). To instruct the students one way all year on material and then test in another seems very thoughtless, unfair, and certainly without merit and validity. And yet the students in the research study found themselves quite often in this predicament "with a lot of unexpected turns and twists" not knowing what was coming up next. The Alberta Teachers' Association [ATA] (1994) views the alignment of curriculum and assessment as important as well. "The best assessment of student

achievement is that done by the teacher as part of the process of instruction. The main goal of evaluation should be to assist the learning process" (p. 16).

Authentic Assessment In Context and Aligned With Instruction Wish

My wish for student testing includes tests that are rich in context and are aligned with instruction, and that the test is as much of a part of instructional process as it is for the assessment one. A test such as this gives students the opportunity to demonstrate skills in an authentic context.

3. Clear Instructions and Clarification of Questions

Students spoke of being confused and frustrated during the tests because of unclear instructions and directions. Once into the test it seemed difficult to know how to proceed. Considerable time was lost through trying to understand what was required, and in one instance the available supervisors were not conversant with the test, which added further frustration and waste of time. Principles (1993) agrees that the students should have these needs met:

> When collecting assessment information, interactions with students should be appropriate and consistent. Care must be taken when collecting assessment information to treat all students fairly. For example, when oral presentations by students are assessed, questioning and probes should be distributed among the students so that all students have the same opportunity to demonstrate their knowledge. When writing a paper-and-pencil test, a student may ask to have an ambiguous item clarified, and, if warranted, the item should be explained to the entire class. (p. 8)

Clear Instructions and Clarification of Questions Wish

My wish is that the test's directions and instructions are clear and questions are unambiguous, and if there is ambiguity as sometimes occurs, the teacher is there ready to clarify the ambiguity.

4. Meaningful Tests and Appropriate Weighting

One of the frustrations students voiced was the weighting that predominantly trivia tests had. The students were aghast when these tests of memory work were worth 40% or more of their grade. A fair test is weighted according to the merit of the content and understanding of that content. Students become frustrated when memory work is given so much credit. They rebelled against the age-old fallacy that Grennon Brooks and Brooks (1993) describe:

> If students can be trained to repeat specific procedures and chunks of information, then they are viewed as "having learned." The predominant ways in which students are asked to express this learning is through multiple-choice or short-answer tests. The typical manner in which teachers document this learning is through posting grades. (p.16)

Students are aware they are not involved in genuine learning when they involve themselves in meaningless activities such as memorizing what the teacher said, rather than understanding, reflecting and making new meaning. Adams (1980) makes this point about genuine learning:

> And there was some point as a professor at Stanford and Harvard when I experienced being caught in some meaningless game in which the students were exquisite at playing the role of students, and the faculty was exquisite at playing the role of faculty. I would get up and say what I had read in books and they'd write it down and give it back as answers on exams, but nothing was happening. I felt as if I were in a sound proof room. Not enough was happening that was real. (p. 18)

Students prefer to be engaged in active rather than passive learning and they want their tests to reflect that.

Meaningful Tests and Appropriate Weighting Wish

My wish is that students are given meaningful tests and that the weighting of the test reflects the importance of the content, and the way students demonstrate their understanding of that content.

5. Marking/Scoring Guide Criteria Provided

Students were often comfortable with the content; they knew their material but did not know what the teacher expected for a response. It seemed too often that teachers kept the scoring guide criteria in their heads and did not share their expectations with the students. Students were at a loss as to know how much time and effort should be spent on each question. Recall how Virgil spent a good part of his time trying to decide where he would earn the most marks. Not knowing how the teacher marks the work leaves the students in a precarious position. The students may spend too much time on relatively worthless questions and at the same time skimp through questions that the teacher has decided to weight heavily. Other than giving an invalid result, this is also unfair in not providing criteria for scoring. In addressing scoring guide criteria, Principles (1993) states:

> Before an assessment method is used, students should be told how their responses or the information they provide will be judged and scored. Informing students prior to the use of an assessment method about the scoring procedures to be followed should help ensure that similar expectations are held by both students and their teachers. (p. 9)

Marking/Scoring Guide Criteria Provided Wish

My wish is simply that with each test or assignment the scoring guide criteria are made available to the student.

6. Adequate Time

Power and its various forms pervaded the students' stories. Because I am guided by the students' stories and what they mean, I cannot overlook the impact that power had on the students. If my orientation is pedagogical, however, I am reminded that if I value students' points' of view, then that means that I not only recognize and become attuned to them, but also address the students' points of view.

One of the forms of power that I gleaned from the students' stories in the existential theme of Temporality was the inadequate provision of time on tests. Although this seemed less significant to me at first, as I read the students' stories I realized that this was very significant to them. Time was a major concern to students, other than trying to puzzle out how the teacher wanted the student to respond to the test questions. A tactful teacher looks out for the needs of students and makes appropriate arrangements and adjustments. Principles (1993) addresses the students' concern about time:

> An assessment procedure should be used under conditions suitable to its purpose and form. Optimum conditions should be provided for obtaining data from, and information about students so as to maximize the validity and consistency of the data and information collected. Common conditions include such things as proper light and ventilation, comfortable room temperature, and freedom from distraction (e.g., movement in and out of the room, noise). Adequate work-space, sufficient materials, and adequate time limits appropriate to the purpose and form of the assessment are also necessary (p. 7)

Not only does this make sense in terms of validity, but it shows a thoughtful and sensitive teacher at work--someone that the students respect. Unless there is a specific purpose for giving students time limits, for example recall-tests on number facts, thoughtful teachers should leave the time allocation open so that students can authentically demonstrate their knowledge and understanding without the time factor invalidating the outcome. As Berlak et al. (1992) state:

> The significant achievements of disciplined inquiry often cannot be produced within rigidly specified time periods. Adults working to solve complicated problems, to compose effective discourse, or to design products rarely are forced to work within the rigid time constraints imposed on students such as the 50-minute class, or the two-hour examination. (p. 79)

Berlak et al. continue to say that tasks that do require time limits are those that by their nature require them rather than by the requirements of institutional management, for example, journalistic writing and medical care.

Adequate Time Wish

My wish is that the teacher will give the student the best chance possible to demonstrate understanding by providing sufficient time for the student.

7. Optimum Conditions and Tactfulness: Corporeality and Spatiality

I find it interesting that the document Principles for Fair Student Assessment Practices in Canada, inadvertently addresses many of the students' needs that a tactful teacher would. For instance, the document in exemplifying its principles for fair student assessment practice, addresses the issues in the existential theme of Corporeality. Students who wrote about their test experiences wrote of physical effects that the test had on them and their frustration with their body not functioning normally. By applying principles for fair student assessment practices, students will not be quite so affected in a negative way when they take a test, because the stressful factors will already have been reduced. Much of the body's reactions will be less extreme, and the adrenaline will flow for positive reasons, not negative ones.

What the document does not address is the existential theme of Spatiality. Unfamiliar places to write tests are not conducive to doing one's best, but often this is out of teachers' control. The document did not mention that test administrators should try to be as sensitive as possible to students in this stressful situation, and often in unfamiliar space. For example, it does not request that teachers not to act in the powerful and authoritative ways that they often do at test time. Formal documents such as these, like the Alberta Program of Studies do not tell teachers how to act, but only prescribe what must be carried out in the classroom. This document is written in a similar vein. I doubt that if the teachers who do take on this authoritative persona would recognize that they do even if it were mentioned in such a document. A competent teacher knows this already and does not need a document or policy handbook to tell him or her how to behave in these situations. A competent teacher knows there is more to teaching than recognizing the students' voices and wishes. Teacher competency has more to do with pedagogical tactfulness, having sensitivity to what is best for students (van Manen, 1986). It is far deeper than ensuring the test centre is at a comfortable temperature to write a test. It is also relating to the students' deep preoccupations at test time. It is pedagogically responding to students rather than behaving as an instrumental proctor.

A proctor is defined by Houghton Mifflin Dictionary as a deputy--somewhat like a sergeant in charge of discipline and punishment. A deputy is not necessarily one with sensitivity and attunement to situations that a student might be experiencing. The deputy has a mission, to ensure orderliness, a smooth administration of the test, and to prevent cheating.

Optimum Conditions and Tactfulness: Corporeality and Spatiality Wish

My wish is that teachers develop pedagogical competence and be particularly sensitive to students' physical and emotional needs during tests.

8. Tactful Test Scheduling

Students who are coping adequately with the class work and are prepared for tests, prefer not to do several tests on the same day. Many students wondered why more teachers did not collaborate and spread the tests out over several days. To get a better idea of what students know, understand, and can do, a test schedule that allows students to demonstrate their knowledge to the best of their ability is a more valid assessment, and a fairer one too. The days on which tests are scheduled are important too. Tests that are scheduled on special days or events are less valid because the students' full attention is unlikely to be on the test, for example the students who had their test scheduled on Graduation Day. When more and more teachers become tactful about issues like this, students' attitudes change and this can affect the morale of the whole school.

Tactful Test Scheduling Wish

My wish is that students will have some say about the time allotment of the test and the scheduled time, for example, not scheduled on special days such as "Grad Day." Even though many teachers try to cooperate and schedule exams fairly, I wish that more would do so, and were given the opportunity to do this by the school administration. Through this cooperation, teachers could plan a reasonable test schedule so that students would not have to take several tests on one day.

9. Special Needs

Students sometimes are not prepared to take tests when they are scheduled. Some students, although they work hard, do not understand the material at all. It seems futile to give them a test when they cannot do it. This is a little different from students who have understanding of the material and the teacher who wants to know what the students do not yet grasp.

Students with special needs like this should have special test arrangements for them. Mei Lee, a second language student, was frustrated by the unfair test because she was penalized for not being able to demonstrate her understanding in a second language. On this issue, Principles (1993) states:

> A written policy should guide decisions about the use of alternate procedures for collecting assessment information from students with special needs and students whose proficiency in the language of instruction is inadequate for them to respond in the anticipated manner. It may be necessary to develop alternative assessment procedures to ensure a consistent and valid assessment of those students who, because of special needs or inadequate language, are not able to respond to an assessment method (for example, oral instead of written format, individual instead of group administered, translation into first language providing additional time). (p. 8)

Special Needs Wish

For those students with special needs who find that, for example, the allotted time is insufficient, my wish is that they have special arrangements made to accommodate their needs.

10. Purpose of the Test: Summative or Formative?

"Grades are the kiss of death; they stigmatize an activity as a pointless educational ritual, worth doing only for the sake of the grade itself' (F. Smith, 1986, p. 182-183).

Another form of power with which the students voiced their dissatisfaction was the power that grades had over them. And do educators really need grades? Willis (1993) wonders about this perceived need too:

> As the school reform movement unfolds and many aspects of schooling are being overhauled, one element remains frozen in time: the report card. The practice of assigning students a single letter grade in each subject has remained virtually unchanged for generations. But today, as teaching practices change, dissatisfaction with the limitations of letter grades is growing, experts say. Innovations in instruction--such as whole language, cooperative learning, and outcome-based education--call for a more flexible approach to reporting achievement, many believe. In response, many educators are seeking better ways to report what their students have accomplished. (p 1)

With more research into reporting student progress, student-oriented educators may be able to develop a more satisfactory procedure than the one that is currently used. Grennon Brooks and Brooks (1993) view grades this way, as labelers of students and as designators of rewards and punishment:

> Overtly, grades communicate that some students are "smarter" than others. Grades are used to place students into tracks, which usually have a profound effect on students' options for college, career, and income. Subtly, grades become the rewards and punishments for school performance. The pursuit of the rewards and avoidance of the punishment overwhelm the search for understanding. For example, several elementary school reading programs across the nation reward students with trinkets, pizzas, or stickers for the number of books read: the more books, the larger the reward. The intrinsic value of reading becomes obscured in these programs by the quest for rewards (Kohn) 1986). The importance of learning and understanding is demeaned. Naturally, this had a correlative effect on classroom, dynamics. . . . Students come to view the struggle to construct understanding as an impediment to the achievement of good grades. (pp. 124-125)

The students spoke of the grade as being their ultimate goal--to learn to pass the test, rather than to understand for life-long learning. Grades can obstruct learning if they are not used appropriately.

It seems that grading is here to stay, so grades must be addressed. If the grade is going to be used, students must have a fair chance at getting the highest grade possible. On this issue, Principles, (1993) states: "Students should be provided with a sufficient opportunity to demonstrate the knowledge, skills, attitudes, or behaviors being assessed" (p. 7). This principle is particularly important when students are tested for grading purposes. Students felt that the test was always used for a grade, when perhaps some of the time it really was for diagnostic purposes. Students did not seem to know the purpose of the test for much of the time. Because there were inconsistencies regarding the purposes and importance of the test, the students became overwhelmed by it all; they did not know how hard to study, so most often they gave up and did not prepare at all. Why should they indeed, when they did not know how, why, or if the information was going to be used? Principles (1993) in reference to collecting assessment information, believes that students should be told why assessment information is being collected and how this information will be used. For instance:

> If students know that the purpose of the assessment is to diagnose strengths and weaknesses rather than to assign a grade, they can be encouraged to reveal weaknesses as well as strengths. If the students know that the purpose is to assign a grade, they are well advised to respond in a way that will maximize strength. (p. 7)

Recent research from the National Council of Teachers of Mathematics (NCTM, 1989) encourages teachers to address summative and formative assessment:

> When assessments are used for grading or as summative indicators of achievement, a number of measures should be used. In addition to the more traditional types of written tests, students should be given tasks that are challenging and complex and that allow them to perform at their maximum level of ability. Not only should such tasks provide meaningful information to parents and school authorities, but they should be interesting and valuable experiences in their own right, giving the student a sense of accomplishment. (p. 201)

And again NCTM (1989) addresses individual differences:

> Students differ in their perceptions and thinking styles. An assessment method that stresses only one kind of task or mode of response does not give an accurate indication of performance, nor does it allow students to show their individual capabilities. For example, a timed multiple-choice test that rewards the speedy recognition of a correct option can hamper the more thoughtful, reflective student, whereas unstructured problems can be difficult for students who have had little experience in exploring or generating ideas. An exclusive reliance on a single type of assessment can frustrate students, diminish their self-confidence, and make them feel anxious about, or antagonistic toward, mathematics. . . . If students are to perform at their maximum levels of ability, the measures by

> which they are judged should give them the opportunity and the encouragement to do so. (p. 202)

Purpose of the Test: Summative or Formative Wish

My wish includes then, that teachers apprise students of the purpose of the test. A "pop test" should only be used for the purpose of feedback for the teacher, to see where students are in their progress, and to plan instruction and not for grading, whereas a summative test should be used for grading purposes.

11. Appropriate Use of Grades

Low grades shamed some students, but one would wonder how students could get such poor grades anyway. Often students are tested before they are ready to be tested. Many students are never ready because they just never catch up. When this occurs, they just learn to give up like Clay who always gets 40% no matter if he studies or not. Grades normalize and label students.

Grading is used very often to motivate students when the teacher uses the test to coax students to pay attention in class. How often have we heard a teacher tell students that they should listen because the information he or she is about to share is going to be on the test? No wonder students then learn to ask, "Is this going to be on the test?" If the answer is "No," most often students do not listen to the teacher after that--it can't be all that important. We have programmed students when to listen, and to tell them what is important. This is detrimental to education because not everything can be tested on a paper-and-pencil test, for example, social skills such as cooperative learning, or attitude, and so forth.

Instead of emphasizing grades, teachers would be well advised to emphasize what they want to find out about what students understand and do not understand, in a risk-free atmosphere. On the one hand, much can be learned from what the student understands--it is a starting point. On the other hand, much can also be learned from what the student does not understand. Teachers can use errors in a positive way; for example, Borasi (1994) recommends from the results of a recent study that students, as well as teachers of mathematics, to capitalize on errors as "springboards for inquiry." He recommends that

> [I]n contrast with the approaches that currently most popular in schools--namely, ignoring the errors made by students in class, punishing them with lower grades, or at best using the information these errors can provide for diagnosis and remediation directed by the teacher--the view of errors as springboards for inquiry informing this study suggested that mathematics students could benefit from directly engaging in the analysis of specific mathematical errors and that the goal of this analysis should not reduce to correcting the error but rather include pursuing open-ended exploration and reflections invited by the error. (p. 199)

Borasi believes that students can learn from errors. He further adds that in the study, he found that it not only contributed to the students' learning of specific mathematical content, but also it gave them a better understanding of mathematics as a discipline, and "also fostered the development of attitudes and behaviors more conducive to success in school mathematics--such as increased critical stance, independence, and self esteem as mathematics students" (p. 199). Wiggins (1993a) agrees with Borasi:

> Let our assessments be built upon that age-old distinction between wisdom and knowledge, then. Too subjective? Unfair? Not to those who have the master's eyes, ears, and sense of smell--who have tact, in the old and unfortunately lost sense of that word. For these intellectual traits are as tangible as any fact to the true mentor, and they are more important to the student's welfare in the long run. It is not the student's errors that matter, but the student's response to error; it is not mastery of a simplistic task that impresses, but the student's risk taking with the inherently complex; it is not thoroughness in a novice's work that reveals understanding, but full awareness of the dilemmas, compromises and uncertainties lurking under the arguments he or she is willing to tentatively stand on. (p. 67)

It is to both the teacher's and student's advantage to treat errors as springboards for further learning. Once errors are viewed positively, students are enabled to become comfortable in making errors so that the teacher and student can learn from them, and set goals to promote further learning. All students will have more opportunity and disposition to learn if the grade is de-emphasized and the focus is placed upon formative assessment. We owe students good assessment; assessment that enables them to recognize their errors and work on them to progress, rather than having errors marked with a red pen and ignored as is often the case.

Appropriate Use of Grades Wish

My wish is that teachers de-emphasize grades and refrain from using them primarily to motivate students to just learn for the test. I wish that teachers focus on formative assessment, and that teachers and students develop positive attitudes towards errors and weaknesses.

12. Mis-use and Abuse of Test Results in External Assessment

According to Principles (1993) developers of External Assessment are expected to:

> Provide score reports or procedures for generating score reports that describe assessment results clearly and accurately. Identify and explain possible interpretations of the scores yielded by the scoring system (grade equivalents, percentile ranks, standard scores) used; and that users of External Assessment should:
> Interpret scores taking into account the limitations of the scoring system used. Avoid misinterpreting scores on the basis of unjustified

assumptions about the scoring system (grade-equivalents, percentile ranks, standard scores) used. (p. 18)

Very little can be accomplished from that kind of comparison. Instead, jurisdictions can study the strengths and weakness and the starting point of their students and the progress made. Not all students have the same starting points from jurisdiction to jurisdiction. It does not make sense that different input results in identical output (Apple, 1979).

How does external assessment affect the student? A great deal of stress is placed upon schools to have their school score high on the Achievement Test, for example, so that schools will be held up in positive light. Indirectly, the student is affected. Some teachers feel the stress and pass it on to the unsuspecting student. I am not advocating abolition of external tests as such, but only that the test results are used in unfair comparison. Once test results are publicized, the publisher has the responsibility to include the accurate interpretation of the results, as well as in language that the general public can understand.

Mis-use and Abuse of Test Results in External Assessment Wish

My wish for external tests is that the results are not used for comparing jurisdiction to jurisdiction or teacher to teacher; and that the public is provided a clear and accurate interpretation of what those results really mean.

13. Addressing Cheating On Tests

Teachers who provide meaningful tests will have little problem with student cheating. It is difficult for students to cheat if the tests contain explanations and application questions, whereas it is easier to cheat for "right" and "wrong" answers. These are the trivia and memory type-questions. While some knowledge is required, it should be set in the context of a real-world application where the student has more of an open-ended question. These kinds of questions have written responses which encourage deep understanding.

Too-frequent testing causes students not to study or take the test seriously. Once into the test some students realize that they should have indeed studied; they panic and consider cheating to pass. Cheating occurs more often on high-stakes tests, such as those that are very heavily weighted. On the other hand, if the student is given monthly tests for grading purposes for example, he or she will be less likely to cheat because she or he has more than one chance to pass. Students who are given tests monthly will more likely take them more seriously than the weekly quizzes. Principles (1993) concurs advocating less frequent tests:

> More than one assessment method should be used to ensure comprehensive and consistent indications of student performance. Use of more than one method will also help minimize inconsistency brought about by different sources of measurement error (for example because of an "off-day"). (p. 6)

Nevertheless, testing should be not overdone as F. Smith (1986) cautions:

"Learning must be free of risk. If we are threatened by learning, then the learning will always threaten. Schools must recognize that continual testing is intellectual harassment" (p. 62).

Addressing Cheating On Tests Wish

My wish is that teachers are given the opportunity to design and construct meaningful tests that have a variety of assessment methods, and that teachers administer them throughout the year.

14. Addressing Secrecy

A tactful teacher will give every chance possible to ensure that the student does the best of his or her ability. Students should know the purpose of the test, format, test blueprint, and weighting of the test initially so the they can prepare adequately. A clear scoring guide should be also provided so that the students know the teacher's expectations.

Addressing Secrecy Wish

My wish is that there are never secrets when it comes to testing.

15. Addressing Motivation

"It is another libel to suggest that children need rewards for attending to tasks, apart from intrinsic interest and satisfaction" (F. Smith, 1986, p. 82).

Students were motivated to study for many reasons, most of which could be considered educationally unsound. Little mention was made of their being motivated to learn or to understand the content. They were motivated basically by fear, and avoidance of various sorts, and rewards.

F. Smith (1986) asks:

> Where do children learn that reading and writing are boring and difficult, that learning is tedious, that they are themselves dullards, that collaboration is cheating, and that nothing at school is worth doing without a score? It is often difficult to persuade teachers of all this. Many teachers have come to believe that it is natural for children to be motivated by scores, to be secretive and competitive, to be apathetic to learning. (pp. 16-17)

In this investigation most students were motivated to study for educationally unsound reasons. And why not? The emphasis that has been put on grades has been one of the causes of educationally unsound reasons for learning, for example, learning to pass the tests, to avoid punishment, or to get a reward. The emphasis on grades devalues learning. Students are studying for the wrong reasons. As long as students are going to be compared and rewarded they are going to be motivated extrinsically.

I believe that students will be naturally motivated to learn and that the test is viewed by them as part of their instruction, if the subject matter is truly interesting and the instruction engaging. If this is so, then students are hard pressed not to learn for understanding. The test is then really a formality for teachers to acquire a picture of what students know and understand, and for the teacher and student to set goals and plan instruction together. Blishen (1969) uses Dermot's observation as an example to show the link between assessment, instruction and context:

> If during the course of a French language lesson the teacher should hit on some topic relating to French history, he has to leave the pupils ignorant, as it were, for he hasn't time because "the exams are coming up soon," and after all he isn't in control of the syllabus! The pupils might know the French language . . . but can they say they are educated about France and the French people? (p. 118)

So why do we give trivial tests? By doing that, we are devaluing the student. Caring teachers take the time to construct fair and worthwhile tests. They do not want to waste the students' time by giving them busywork, and students recognize busywork tests. Students find it insulting and frustrating to have to do their best on a poor test. When students get a steady diet of trivial tests they learn not to take them seriously nor to study.

Instead of tests of "trivial pursuit" as Perkins (1992, p. 172) calls them, the sensitive teacher makes each test worthwhile, one for which students do not have to just regurgitate trivia, but demonstrate their deep understanding. Good teachers know that most students can memorize and reproduce information, but the real test of skill is in understanding, and students want to be credited for that. It is similar to demonstrating instrumental reasoning as opposed to relational reasoning. When all students are required to do is to demonstrate instrumental reasoning, they feel short-changed. F. Smith (1986) believes that poor testing such as trivia tests are often caused by teachers themselves not understanding their subject matter. He gives this explanation:

> In 1972 mathematics teacher Richard Skemp suggested an explanation why teachers might prefer programmatic instruction. He distinguished two forms or purposes of mathematics understanding: Instrumental and relational. Instrumental understanding, he said, is knowing how to do something like cross-multiplication of numerators and denominators in the division of fractions, without necessarily knowing why it is done. Relational understanding means comprehending and reasoning behind mathematical operations, for example why cross-multiplication results in division. Instrumental learning has limited applicability, results in monumental errors of understanding, and rarely leads to useful insights. Relational understanding, by definition, produces learners who know what they are doing, who can evaluate results, extrapolate from them, and even work out likely new strategies independently. So why is so much school instruction instrumental? Skemp argues that instrumental operations are much easier to teach and to drill, especially for teachers who lack any mathematical understanding themselves.

> Instrumental instruction lends itself perfectly to the mindless repetition found in workbook and computer exercises. (p. 71)

Van Manen (1986) agrees with Skemp that a good teacher is knowledgeable in his or her subject area. Van Manen says, "a real math teacher is a person who embodies math, who lives math, who in a strong sense is math" (p. 45). A teacher strong in her subject area knows the kinds of questions to ask to uncover the real strengths and weaknesses of the student. If we concern ourselves with real understanding rather than memorization, we will not have students like Ben making a statement like this:

> Final exams are the worst; they are worth so much and they are so hard! It is almost impossible to remember what I have learned six months back. Hell, half the time I don't remember a week back. There is so much that has been taught in six months it's hard to remember it all.

Fullan (1991, p. 30) in making a point about meaningful instruction, uses the following quotation from Alice in Wonderland: "If there is no meaning in it, that saves a world of trouble, you know, as we needn't try to find any" (King of Hearts after reading the nonsensical poem of the White Rabbit). Students, too, recognized the meaningless pursuit of trivia, and most often did not study for a test because they knew from experience that it was not worth studying for; there was no meaning in it, and, like the King of Hearts, they didn't bother looking for any meaning. Nor did they take the test seriously because the teacher did not. Instead, students told me that they valued deep understanding as opposed to memorizing trivia, and they wanted to spend time learning for understanding and not just memorizing for a test. They valued being respected as thinking intelligent people; not just empty heads to fill to pass a test. But herein lies a dilemma for students. While they wanted to learn meaningful content and learn for understanding, they also wanted to pass the test. It seems that both were not possible because there was no time for understanding. Hence, we hear, "just tell us what's on the test and we'll study it to pass," and yet is that what students really want? Not according to Patricia: "At the moment we seem to be working merely for the sake of examinations, whereas we should work to satisfy our curiosities" (Blishen, 1969, p. 115).

Another factor that relates to motivation is opportunity for success. Some students, no matter how hard they tried, discovered that studying to get good grades or even pass the test was out of their reach. Those students gave up altogether; they had a mountain too high for them to climb. Once Clay was an enthusiastic student, but getting the same low mark each test caused him to give up trying. The question is, why was he consistently given a test that he could not do anyway? If the outcome were known before he started it, then what was the purpose? It is inappropriate to give a test to a student time and time again knowing that he or she can not pass it. It just keeps reminding the student where he or she stands in the ability line-up. A tactful teacher, on the other hand, would sense the student's needs and provide him or her with a test that the student would have some chance of passing. Paris et al. (1991) write:

> Our surveys of students in Grades 2-11 revealed that by adolescence many students become suspicious and cynical about tests. A large number of students, especially low achievers, become anxious about tests, cheat, try half-heartedly, or use poor test-taking strategies. These reactions may preserve students' feelings of competence when they receive low test scores, but they undermine the validity of the test scores and discourage genuine learning. (p. 12)

Addressing Motivation Wish

My wish is that teachers take steps to motivate students to learn for understanding.

16. Tact in Testing

Students appreciated being well informed about the details of upcoming tests. The more they knew about the test, the less they worried about it. Indeed, they felt they had enough to worry about as it was. Providing the students with information like this does take more time and effort but in the long run it helps the students perform better on their tests when they have one less thing to worry about.

During the test tactful teachers attend to the students in need, in a caring way just as they did during the class. They don't turn into mechanical proctors with just one purpose on their mind, to administer a test and control cheating. When there is a pedagogical relationship, students do not have the fears that cause cheating. Care is taken to inform parents about the assessment procedures and purpose. Students who have tactful teachers feel comfortable about asking for help regarding the need for more paper for example, or to ask for distracting noise to be addressed, or have ambiguous questions clarified.

After the test, teachers return papers with grades written inside the test or simply record the grade in the record book for the student to see only his or her own. There is no need to call out grades--for what purpose does it serve? A tactful teacher with a good pedagogical relation is above punishing students that way and can understand that it is no reward for a student with a high grade to have it consistently publicized.

Tact in Testing Wish

My wish is that teachers will treat students in a tactful way, putting their needs first and asking, "What is best for the student in this situation?" The teacher will be sensitive about administering the test, and returning the grades. The teacher will treat students as people rather than objects that are put through a test process.

17. Developing Tests Worth Taking

A teacher who has subject matter expertise will have the knowledge to construct tests that include a range of content matter in a meaningful context and include low-level, mid-range, and high-level questions. These include such

questions using the full scale of Bloom's taxonomy, from knowledge-based, questions, comprehension, analyzing, syntheses, judgement, and evaluation. Because the teacher has expert knowledge, she or he will provide deep questions on the test with an open ended scoring guide for higher-level questions.

Developing Tests Worth Taking Wish

My wish is that teachers have the opportunity to teach in the area of their interest and expertise as much as possible so that the students will have the best possible chance of instruction and assessment that is meaningful. My wish is also that teachers will construct tests worth taking: fair, interesting, and tests that challenge students to demonstrate their knowledge and understanding.

18. Testing As a Positive Activity

In the testing situations, students are aware that the test can be a positive thing--to help them learn and grow, and to celebrate their understanding. Tests can help them and the teacher to plan for further understanding. The test need not normalize, devalue thinking, or degrade students. Tied closely to instruction, the test will be less likely seen as an event or something that must be done to students, but rather as something that is part of the everyday classroom instruction that's related to the real-world. Wiggins (1993a) notes that in the real world, "the adult always has the opportunity to adjust, consult resources, ask questions, bring in others, or even seek a delay" (p. 94).

Testing As a Positive Activity Wish

My wish is that teachers nurture the idea that testing can be a positive activity to help the student grow and enjoy learning.

Chapter VII Summary and Reflection

Generally speaking, students do want to do well in school, but many feel that no matter what they do, they are doomed to failure, and eventually develop a sense of hopelessness. Hopelessness, according to Bollnow (1989) "chokes all free and active life. To create hope for a person and then to reawaken it after every disappointment is the condition which must be fulfilled if one is to help a person out of a crisis" (p. 25). For many students, contending with one disappointment after another as the character in Amy Tan's novel did, leads to hopelessness in spite of encouragement from parents and teachers. Some teachers, however, inadvertently set children up for failure. It's odd how they invite students to demonstrate their strengths and then the students hear them say, "Well, show me your best--but you have to do this in a cold unfriendly space, in a limited time on a test that is full of surprises and is administered by us military-minded teachers. You don't have a name, just a number and we know you're going to try every trick in the book to cheat. As well, this test counts for most if not all of your grade, so if you fail this one test you're going to have to start all over again, never mind how well you did during

the year. Once the test is marked, your mark is going to be broadcast for the whole community to hear. And finally, this grade is so crucial that it will determine if you're going to make it in this world or not." Naturally this is an exaggeration, but these are the kinds of things that students have had to deal with during an already stressful time. It seemed that not a lot of empathy was exhibited by teachers during the test times. Test times were times of fear, anxiety, humiliation, and hopelessness for many students. This is also evident in a study by King (1986) in Fullan (1991) of over 44 000 students in 60 Ontario schools, which found that "one quarter [of the students] agreed that 'teachers often make me feel foolish in front of the whole class'" (p. 174).

. . . . But it need not be that way.

My Final Wish

My wish is that teachers will act tactfully and put testing in a positive light, construct fair and engaging tests, and allow students to demonstrate their strengths and weaknesses without risk, and together with the students set goals for learning for understanding.

Tests are written in the halls and arenas of medicine, chemistry, physics, athletics, psychology, law, and education. Tests have even invaded the commercial world--the world of Pepsi Cola--"the taste test." Even Pepsi Cola must make the grade! Tests are omnipresent. Christ was tested by the Pharisees (Matthew 19:3), and the word of God was tested (Proverbs 30:5.) No one or thing escapes "the test." Tests are real world ongoing processes. They can be private or they can be public. Privately we can have a personal relationship with a test that we have tailored for ourselves, as in a self-test. In athletics, for example, we may push ourselves to stretch our limits to test our strength, mettle, or endurance. Publicly, a tragedy in the community or a celebration will test the spirit of that community. Is the spirit strong or weak? Can it "pull together" in this time of stress? This kind of testing is a natural testing or assessment that is part of our lives--where it is subject-subject testing.

By becoming attuned to students I found they accept testing as necessary for many valid reasons, but they do have testing preferences, nevertheless. I learned that the students' test "wish-list" was simply a wish for a fair test; a test where they could demonstrate their abilities, be proud of their results, and not be frustrated; where they could experience a healthy stress, not a negative stress; and be reassured, above all, that the test was fair. That way they wouldn't have to be concerned like Kirk was about "beating the test," or tricked or tripped up, or as is sometimes the case, being at the mercy of the examiner's poor test construction skills. Instead, students would be empowered to use the test to demonstrate their knowledge and skills. Hoffmann (1964) writes the following about "deliberate traps" that are set in tests:

> It is not without significance that the professional testers refer to the "wrong" answers as "distractors," "misleads," and "decoys." The decoys are deliberately designed to seem plausible. They are, in fact, deliberate

> traps. Were they always traps baited with definitely spurious bait one might tolerate them, even though their presence gives the test an air of trickery and deception that is not altogether becoming. But too often the traps are baited unfairly. For it is difficult to draw a sharp line between legitimate wile and illegitimate deceit, and the temptation to trespass on the shadowy no-man's land between the two is hard to resist. (pp. 69, 70)

A fair test on the other hand will more likely provide the truth, even if the revealing truth is not in the students' favor. A student who fails a fair test can accept that result, perhaps in the same way that a traffic offender accepts the consequence of receiving a traffic ticket; albeit, not particularly pleased about it, but accepting it anyway as fair play.

> Yeah, I blew it. I knew that I should have studied more. No excuses--my fault. I thought I might be lucky and just get the questions that I knew, but really--it was fair. No-one to blame but myself.

The student accepts the verdict. He knows that he has the opportunity to change the result if he works harder next time because he knows the test scoring guide criteria. At this time he can accept his teacher's and peers' judgment in not meeting the standard--and that is a fair judgment. He is prepared to accept that. Pedagogically, we might ask students what helps them write a test and what conditions help them. I invited my students in one of my university classes to generate a test wish list. Students compiled a very sensible list of items, none of which could not be addressed (other than neck massages!) and one that is congruent with the principles listed in the document Principles for Fair Student Assessment Practices for Education in Canada. I have invited students do this exercise each year and the list does not change generally speaking. So, what do students wish for?

Students' Wish List (1992-1994)

Tell us what is going to be on the test (blueprint).
Give us enough time to finish the test.
Test us on the main points of the course and not minor points (no trivia!).
Give choices.
Break the test down to give a variety of question types.
Maximum weighting for the test is 30%.
Put some humor on the test.
Test should involve more than memory work.
Provide clear instructions.
Exam should be in the same room the course was taken.
Have applied knowledge questions.
Have a post-test review.
Make first and last questions easy.
Test psychomotor, affective and cognitive domains.
Give non-cumulative exams.
Allow a possible re-write for poor mark.

Design the test to promote understanding.
Tell how much the question is worth.
Allow students to defend their answers.
Allow point form if there is a time limit.
Try to make it a relaxed atmosphere--less formal.
Provide former exams for review.
Give a bonus question for 1 mark, for example, "What's your name." (!)
Allow the test to be written during the regular class time.

CHAPTER VIII

Thoughtful Pedagogical Instruction and Assessment: A Celebration of Learning and Living

"What is the test:
Being and becoming,
not remembering and reviewing"

As I drew nearer to understanding the meaning of students taking a test, the closer I came to what students saw as good instruction. Clearly, good assessment and good instruction go hand in hand. We cannot have good assessment if good instruction is not in place first. Again, this concept was reinforced by the students as I continued to listen and learn from them as I made meaning of their points of view. Grennon Brooks and Brooks (1993) agree:

> Seeking to understand students' points of view is essential to constructivist education. The more we study the learning process, the more we understand how fundamental this principle is. Students' points of view are windows into their reasoning. Awareness of students' points of view helps teachers challenge students, making school experiences both contextual and meaningful. Each student's point of view is an instructional entry point that sits at the gateway of personalized education. Teachers who operate without awareness of their students' points of view often doom students to dull, irrelevant experiences, and even failure. (p. 60) [emphasis added]

The underlying message from the students' stories supports Grennon Brooks and Brooks (1993) and Gitlan (1990). Students who wrote were frustrated by not having a voice in their education. If only the teacher would listen! If only the teacher would understand! Many teachers go about teaching their teaching units in a diligent way, working hard, but never really relating to their students, or being aware of their students' points of view. Their students then continue to be passive learners, taking in information to return it more or less verbatim on the test. Classrooms may look busy--frenetic activity takes place--but in the form of busywork, mindless manipulation of objects, and other meaningless activity. Students appear to be learning, but it is learning in rather shallow form; it is not deep learning or learning for understanding.

As I continue to learn from the students and continue to be surprised at their wisdom in terms of what constitutes good instruction and assessment, I find that they have had voice in the structure of yet another chapter of their story of what is like to take a test. This chapter begins by addressing the students' voice first and their understanding and point of view of what comprises good instruction and assessment. I then look to the research for further understanding and support or refutation of the students' beliefs of good instruction and assessment. Through reflecting on the students' voices and the research, I will try to gather some insight into the linking of instruction to assessment, and the implementation of this by teachers, with particular focus

on constructivism Finally, in Chapter IX I will conclude with my learnings about testing from a students' point of view and how the research changed my view of assessment--my growth as a learner, and myself as a researcher.

Students First!

Addressing Students' Points of View

From what I understood of the students' stories about their testing experiences, students indirectly alluded through those stories to what they believed to be effective and meaningful assessment and instruction. Students were very clear about what meaningful instruction was not, which indirectly tells us what meaningful instruction is.

What Meaningful Teaching Is Not

Several factors emerged from students' stories that pertain to what meaningful teaching is not, namely: "Teaching to the Test," "Unengaging Instruction and Irrelevant Content," and "Motivation for Educationally Unsound Reasons."

Teaching to the Test: Many students did not respect teachers teaching to the test. This devalued learning for them and they resented learning purely for the purpose of testing. Recall Matt's anecdote: "The teacher says, 'Here is what we're studying. Read the pages, answer these questions--the test's in three days.' There is no real interaction and no real concrete interactive understanding of the subject" [emphasis added].

Matt feels short-changed by that kind of instruction. Is a teacher really necessary to perform the task that he described? Yet on the other hand, some students just want to know what to learn for the test. Many students, particularly older ones who are obliged to take high-stakes tests, appeal to teachers with "Don't give us any other extraneous details or make us discover the answer--just tell us what to learn and we'll learn it." The students have learned to view learning this way because of the importance of the grade, and the power the grade has over their futures. They want to know what to memorize, but not to understand because they do not have time for understanding, particularly for the "high-stakes" test. Instead of focusing on understanding, students focus only on acquiring a good mark on the test.

Unengaging Instruction and Irrelevant Content: Many students saw their instruction as not engaging their minds because the content was meaningless and irrelevant. Students like Paco, for example, did not make connections with history. He saw it as a waste of time. "In 1793 some French fag led a revolution," or "NATO stands for this--."

Katy, too, saw curriculum content as something irrelevant to memorize: "This seems all so unfair because this information isn't very relevant to my life and I don't remember recall of facts well."

Students felt cheated by the kind of instruction that is responsible for shallow learning in the quest to "cover the curriculum." On the other hand,

recall the Grade 3 students' conversation about how they preferred the CAT test to the classroom tests:

N.: Why do you like the [CAT] tests better than the others?
Student 3: You don't have to write--you just fill in circles--but if you don't fill them in right, the computer marks them wrong 'cos it can't take any writing or anything--just little dots.
N.: How do you prepare for those kinds of tests?
Students: They give you a bunch of sheets to fill in until you get used to it. They make you memorize-questions to 18--adding and subtracting--and you have to do two rows in a minute. [emphasis added].

It seems that young children often do not seem to question the relevance of what they have to do so much as the older students. Young students are more accepting of what passes as instruction and assessment. Katz and Chard (1989) make their point about the rapid romp successful students routinely make through the content and then taking the perfunctory test to justify the grade:

> Schools throughout America are filled with students . . . who have been acculturated to devalue thinking, to feel uneasy about in-depth analysis, and to view anything other than rapid coverage of the curriculum as wasting time. These students are frequently successful in school. They study, complete their assignments, pass their tests, and receive good grades. Yet, these are not meaningful victories. They are the victories of form over substance, of superficiality over engagement, of coverage over depth. . . . Many recent school reform initiatives are built on the time-honored but terribly flawed test-teach-test model of instruction. (pp. 120-121)

It appears that while the students have succeeded in the rites of passage in education, can we be certain that they learned very much along the way?

Motivation for Educationally Unsound Reasons: Students were well aware that their motivation to learn was generally for reasons other than educational ones. If the topics were engaging, teachers perhaps would not have to put such lures as rewards in front of them to work, and neither would parents.

> It's unfortunate that much of what we seek to teach our students is of little interest to them at that particular point in their lives. Curriculums and syllabi developed by publishers or state level specialists are based on adult notions of what students of different ages need to know. Even when the topics are of interest to students, the recommended methodologies for teaching the topics sometimes are not. (Grennon Brooks & Brooks, 1993, p. 106).

Apparently Calvin couldn't agree more about the interest level of his instruction. Here he laments:

Figure 11

Cartoon: Uninteresting Instruction

WHY IN THE WORLD AM I WAITING IN THE POURING RAIN FOR THE SCHOOL BUS TO TAKE ME SOMEWHERE I DON'T EVEN WANT TO GO?
I GO TO SCHOOL, BUT I NEVER LEARN WHAT I WANT TO KNOW.

CALVIN AND HOBBES copyright WATTERSON. Reprinted with permission of UNIVERSAL PRESS SYNDICATE. All rights reserved.

Normally an inquisitive little boy and enthusiastic about life in general, he is turned off by school. He speaks for many young children who look so eagerly to school but never learn what they want to know.

Unfortunately, to make learning "fun" for Calvin, some teachers expend untold amounts of energy, dressing up the classroom, and having students engage in "fun "activities. Learning is indoctrinated with "fun" mascarades and façade. However, for Calvin, real learning is interesting in its own right. When Calvin is investigating insects, he is completely absorbed in the wonder of them just as they are in their own "living color." Caterpillars, for example, do not need grinning faces to make them appealing or "fun" for Calvin, and yet how many classrooms do we find in the spring with green caterpillars with silly big grins plastered over the classroom walls--clone after tedious clone, carefully cut out from duplicated worksheets? Early childhood researcher, L. Katz (personal communication, April, 1987) once made that very same observation. She noticed children in an "art" class diligently following step-by-step direction from the teacher in order to construct the prescribed green caterpillars as they did each spring, out of the usual egg cartons, which they finally painted with the standard green paint. At the time, Katz made the observation to the teacher that caterpillars do come in many colors, many sizes, with many different kinds of exterior coverings. Yet many students leave school believing that caterpillars are green. Shallow instruction like this cannot be helpful for deep assessment of learning. We need to have both rich instruction for real learning so that we can have real, or authentic assessment.

When I think of the most "fun" I have had in learning, it was not doctored up with frippery. It was real. Learning to play the piano was real in its own right, as was learning how to make sense of, and work the computer. How the hours flew by as I was completely absorbed in learning! I did not need special programs or activities to coerce me into believing it was "fun"--and for the most part, nor do children. Teachers have been taught to believe that if it is not fun for students it is not good. Learning in itself is enjoyable, intriguing,

interesting, and yes, sometimes it does take tenacity and steady hard work to succeed. Often it is fun--but it doesn't have to be for the learner to feel a deep sense of satisfaction and accomplishment.

The business world is aware of the powerful message that "fun" sends to the uninformed public. Many commercial companies in computer technology, for example, have specifically focused their wares on making learning "fun" for children, particularly in education. Does that mean that learning, then, in its own right, is not fun? F. Smith (1986) takes exception with the "fun" focus as well. He cites the following computer programs that insult students' intelligence: His examples include, a Scott Foresman software program called "Reading Fun"; Miliken Publishing Company's entire program called "Edu-fun" producing such programs as "Mathfun" and "Wordfun," and Barnell Loft of Balwin, with a series of vocabulary exercises called "Fun With New Words," and "Reading for Fun." And it seems that "fun" is gaining in momentum. The 1993 Mid-Winter issue of MacSelect catalogue features more "fun" programs, not just for young children but for older ones as well. For example, "Fun Physics" from Knowledge Software, to programs that promise "Interactive learning fun for ages three and up" from T-Maker, and from MECC: "Math basics have never been more fun for kids!: A fun grid format makes learning fun for children eight and over." Parents are now targeted as well, for example, Davidson & Assoc., "New Math Blaster Plus:--a fun way for your child to learn math!" Finally, grandmothers aren't spared either: From Broderbund, we have "Just Grandma and Me CD--animation and music make learning fun!" (pp. 60-61)

F. Smith (1986) poses an interesting question about fun and learning:

> What's wrong with all this concern with fun? Does learning have to be miserable? Of course not. But the underlying implication of "learning should be fun" is that learning will be a painful and tedious activity unless it is primped up as entertainment. Learning is never aversive--usually we are not aware of it at all. It is failure to learn that is frustrating and boring, and so is having to attend to nonsensical activities. Children do not learn things because they are fun, but because they enable them to accomplish ends, and they learn in the process of accomplishing those ends. (p. 82)

What Meaningful Teaching Is

I have understood that what students believe is meaningful teaching and what they believe it is not. Students prefer to be engaged in meaningful, interesting topics; topics and activities that are relevant and have real-world application. For example, I gave my class of university students an assignment which they felt was one of the most relevant ones that they had done at university to date. It was challenging in that they had to find a way to use an abstract concept such as statistics in a real-world application. The following is the assignment as it was given to the students.

APPLICATION ASSIGNMENT: 10 MARKS

The purpose of the Application Assignment is to have you experience student engagement in learning in the context of descriptive statistics. Too often material such as this is learned by rote for a test instead of learning to understand it for its real-world application. Class time will be available for you to work on this project and I will be available for individual/group help.

Specifically, you are to demonstrate what you know and can do with central tendency and variance. You may choose to demonstrate this in a real-world situation of your choice.

Data Gathering: Data may be obtained from unlimited sources such as the sports world, medical fields, businesses, research station, entertainment world, agriculture, etc.

Procedure: You may wish to work collaboratively with others, in pairs, or individually, whichever is the best way for you to demonstrate your knowledge and which will be the most useful, meaningful, and interesting for you. There really is no limit to the number of ways to proceed.

Presentation/Representation of Knowledge: Again there are numerous ways to do this, for example by use of charts, video, photo album, slides, "filmstrip," dramatization/role play--as an alderman/woman presenting findings, board chairperson, coach, teacher, principal, superintendent, doctor, dentist, caretaker, etc.

GRADING CRITERIA:

5 MARKS: You will accurately apply mean, median, mode, range, frequency, and standard deviation to real-world data.

5 MARKS: You will present this knowledge clearly in an interesting, creative, and meaningful form that would be understood by the general public. If you are working with others, you must indicate how your group wishes to be graded to ensure fairness to all.

The students could choose how they wished to apply this concept, and the range of the different ways they did this was exceptional, from traffic statistics to the race track statistics. Students found they spent more time and energy on this assignment than they had intended, and yet they enjoyed it. Some students who previously "learned" standard deviation for their math test in other courses said that this was the first time that they actually understood it. Now when they read an article that referred to standard deviation, they could make sense of it because they had internalized it (Doll, 1989). As F. Smith (1986) says, "When learning is successful, it is totally inconspicuous" (p. 27).

This was an example of an engaging activity, or as Wiggins (1993b) calls it, an "ill-structured task"--the students' representation and presentation of their understanding were completely up to them. The assessment was authentic because the instructional activity was authentic; "the methods and criteria are quite clear to all students in the course, there are no pat routines, procedures, or recipes for solving the problem" (Wiggins, 1993b, p. 205). Wiggins judges the authenticity of tasks by the following factors which are briefly outlined here: Engaging and worthy problems; faithful representation of the contexts in a field of study (no secrecy); nonroutine and multistage tasks--real problems; tasks that require the student to produce a quality product and/or performance; transparent or demystified scoring criteria, interactions between assessor and assessee; response-contingent challenges which the effect of both process and product/performance determines the quality of the result; trained assessor judgment, in reference to clear and appropriate scoring

criteria (possibility of altering a result because of oversight); and the search for patterns of response in diverse settings (pp. 206-207).

It is impossible to assess for understanding if we have not first taught for, or engaged students in, understanding. Traditionally, and still today, sadly, much emphasis has been on repeating, or miming, newly presented information (Jackson, 1986) in reports or on quizzes and tests. On the other hand, the kind of assessment and instruction that the students valued in this investigation, is closely related to constructivism, as Grennon Brooks and Brooks (1993) describe:

> Constructivist teaching practices, on the other hand, help the learner to internalize and reshape, or transform, new information. Transformation occurs though the creation of new understandings (Jackson 1986; Gardner 1991b) that result from the emergence of new cognitive structures. . . . . Deep understanding occurs when the presence of new information prompts the emergence or enhancement of cognitive structures that enable us to rethink our prior ideas. (p. 15)

Figure 12 illustrates what understanding is not. Again while we may chuckle at this cartoon, it really does target the truth, particularly as I have found, in mathematics. Many teachers of mathematics and their students, do not have a good understanding of mathematics. They have learned their mathematics instrumentally and while the algorithms may "work" for them, they have little understanding as to why they work.

Figure 12

Cartoon: Teaching for Understanding

HERMAN copyright Jim Unger. Reprinted with permission of UNIVERSAL PRESS SYNDICATE. All rights reserved.

Constructivist approaches as described by Duffy and Bednar (1991) refer to engaging in projects or topics on which students can work collaboratively or individually in pursuing their interests in rich context. Such projects emphasize reflective thinking and model problem-solving by "experts or in apprenticeship roles." Gardner (1991) believes in the project and apprenticeship approaches which he feels can take on a developmental perspective from novice, advanced to journeyman and master levels. He posits the idea that these can be regarded as authentic ways to approach learning and assessment. He presents the following criteria:

> How well is it conceptualized? How well is it presented? How well has it been executed in terms of technical facility, originality, and accuracy? To what extent, and how accurately is the student able to assess the project on these criteria? It is possible to secure reasonable consensus on such evaluation, and the fact that projects can be so described and

evaluated allows them to be considered seriously by the entire community rather than being dismissed as a frill. (p. 217)

Gardner (1991) cautions, however, that projects are not a panacea:

[P]rojects can be assembled hurriedly on the last day and can draw heavily on the child's own previous work or the work of a friend or classmate. Some materials must be learned by drill; others are more readily presented by classroom lecture or by textbook reading rather than by hands-on, museum style-style activities or by participation in an apprenticeship arrangement. (p. 219)

Constructivism: What The Research Says

What is constructivism? Constructivism can be contrasted to traditional teaching where students passively absorb transmitted information from others (Clements & Battista, 1990). It is a Piagetian-based concept in that it holds the view that knowledge is actively created or invented from previously-held knowledge by the child, and not passively received from the environment. In addition, as children create new knowledge, that newly-created learning is a social process in which children grow into the intellectual life of those around them (Bruner, 1986, in Clements and Battista, 1990; Grennon Brooks & Brooks, 1993). Finally, constructivism holds that no one true reality exists, but rather only individual interpretations of the world, and these interpretations are shaped by experience and social interactions. Therefore, when a teacher demands that students use set mathematical methods, for example, the sense-making activity of students is seriously curtailed. "Students tend to mimic the methods by rote so that they can appear to achieve the teacher's goals" (Clements & Battista, 1990, p. 35). Katz and Chard (1989) note that young children in particular like to please the teacher and that teachers should be aware that children may not have understanding and are pretending to understand. Many children also pretend to understand for fear of reprimand or to avoid shame. They mindlessly go about activities but no real learning is taking place--only learning how to keep the teacher under the illusion that they are learning.

Bruner (1960) in Perkins (1992) believes that instruction should have the objective of leading the child to discover for himself rather than being told what to write and think, and then being tested on what they have been told. This kind of instruction and assessment leads to producing bench-bound learners whose motivation for learning is likely to be extrinsic to the task--pleasing the teacher, getting into college, and artificially maintaining self esteem.

Constructivism in the Classroom: Instruction

"The myth is that learning can be guaranteed if instruction is delivered systematically" (F. Smith, 1986, p. ix).

How does constructivism appear, for example, in a Grade One classroom setting? Put simply, it replaces workbooks and worksheets with activities in context as Kamii and Lewis (1990) describe:

"Paper-and-pencil exercises cause social isolation, mechanical repetition, and dependence on the teacher to know if an answer is correct. We therefore replace the textbook, workbook, and worksheets with two kinds of activities: games and situations in daily living" (p. 37).

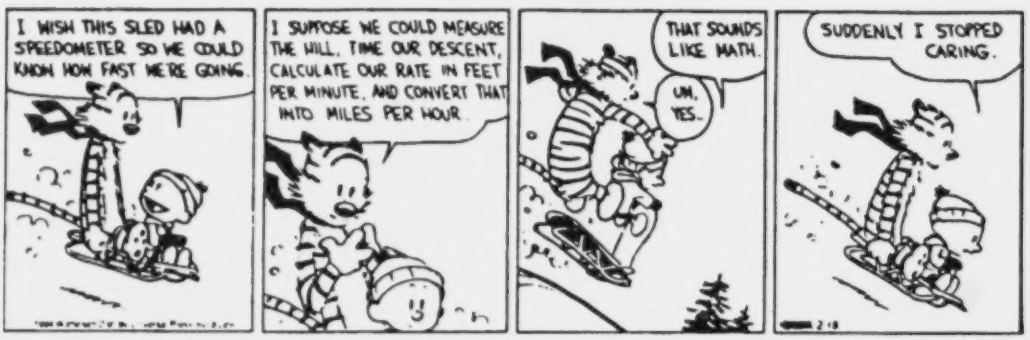
Jonassen (1991) agrees that effective learning is learning in context:

> Many educators and cognitive psychologists are working to develop more constructivistic environments and instructional prescriptions (Duffy & Jonassen, in press). Perhaps the most important of these prescriptions is the provision of instruction in relevant contexts (Jonassen, 1991a). Situated cognition (Brown, Collins, & Duguid, 1988; Resnick, 1987) argues that learning occurs most effectively in context, and that context becomes an important part of the knowledge base associated with that learning. So, rather than decontextualizing learning in isolated school environments, we should create real-world environments that employ the context in which the learning is relevant. . . . Another important strategy is the presentation of multiple perspectives to learners. Cognitive flexible theory is a conceptual model for instruction that facilitates advanced acquisition of knowledge in ill-structured knowledge domains. (p. 11)

Learning in context brings learning to life--it does not kill it as Calvin's learning seems to be in Figure 13. It seems that already Calvin cannot see very much relevance in learning mathematics, a subject that is so relevant in life.

Figure 13

Cartoon: Relevance of Instruction to Life


I WISH THIS SLED HAD A SPEEDOMETER SO WE COULD KNOW HOW FAST WE'RE GOING.
I SUPPOSE WE COULD MEASURE THE HILL, TIME OUR DESCENT, CALCULATE OUR RATE IN FEET PER MINUTE, AND CONVERT THAT INTO MILES PER HOUR.
THAT SOUNDS LIKE MATH.
UH, YES.
SUDDENLY I STOPPED CARING.

CALVIN AND HOBBES copyright Watterson. Reprinted with permission of UNIVERSAL PRESS SYNDICATE. All rights reserved.

The Students' View of Constructivism in the Classroom

How does the student view the constructivist approach? Students brought up on the traditional diet of worksheets and trivia tests sometimes have difficulty with this approach. Many teachers have experienced the students' displeasure and often teachers give up and go back to their old ways of teaching, keeping the students happily mired in their comfortable workbooks. Competitive students often find the constructivist approach particularly perplexing and somewhat irksome. Some time ago I had a very competitive Grade 2 student in my class who had already learned how clever he was and who was not at all comfortable working cooperatively, sharing his understandings, or being assessed without letter grades. He wanted his report card to show the usual column of "A"s to show off to his family and to his friends. What a malcontent he was for the first few months in the classroom! The adjustment was quite difficult for him, and although he finally accepted the approach, he really did not feel quite comfortable with it. Older students often react in the same way, particularly when they face more and more "high-stakes" tests. When students are first introduced to the constructivist classroom, there is a certain amount of "buying in." It is a whole paradigm shift for some of them, as there was for my Grade 2 student. Most often we talk about "paradigm shifts" for teachers forgetting that even students have become entrenched in meaningless learning and competition and find it difficult to come to grips with the concept of learning for understanding. For many students who have learned to "work the system," this is a significant paradigm shift for them and not one that they find at all to their liking.

Jonassen (1991) agrees:

> Whatever the challenges of cognitive complexity and task management, a rather different kind of challenge concerns learners' attitudes toward the enterprise. When learners are asked to thrash around for themselves to some extent, there are often characteristic reactions such as, "Why don't you just tell me what you want me to know?" Such learners are not "buying in" to the constructivist agenda of the instruction, a problem that inevitably stands in the way of a fully engaged learning experience. (p. 20)

Gardner (1991) also has found that some students don't want to "waste their time" developing theories and exploring ideas if the teacher already knows that they are "on the wrong track." Teachers sometimes feel pressure from students to give them the "right" answer and to stop wasting their time.

When students learn in a problem-solving hands-on way, they often think and say they aren't doing anything in class. Students and some adults tend to confuse "doing something" with filling in a workbook. The workbook is tangible. Thinking is not. Again this goes back to whether or not the students' buy into this approach, and also recalling F. Smith's (1986) comment that successful learning is inconspicuous. An interesting illustration of devalued learning is provided by Grennon Brooks and Brooks (1993):

> Five 7th grade students were working with the librarian after their social studies class reacted to the U.S. Constitution's "three-fifths rule," which stipulated that five votes by Africa-American males are counted as three votes by white males. One of the five students seemed rather impatient and pre-occupied. The following dialogue ensued:
> Librarian: Ava, you seemed far away. Is anything wrong?
> Ava: Why do we have to spend so much time talking about this?
> Librarian: We're talking about it so that you'll understand it better. I want you to learn about it.
> Ava: We don't have time to learn it. We have to get the assignment done. Mr. Smith is going to collect it. (p. 119)

It seems that Ava does not have time to make sense of her material; she only wants to get it done to hand in for the grade. Because she does not make real sense of it, she never really does get to understand it. Many students who pass tests don't understand how to apply their knowledge, for example, the results that the National Assessment of Education Progress (NAEP) show that, although the majority of students can compute, they lack the knowledge and ability to apply those computing skills to solve problems (Carl, 1991, p. 2).

Grennon Brooks and Brooks (1993) note that constructivist teachers inquire about students' understanding of concepts before sharing their own understandings of those concepts:

> It's hard for many teachers to withhold their theories and ideas. First, teachers do often have a "correct" answer that they want to share with

their students. Second, students themselves are often impatient. Third, some teachers adhere to the old saw about knowledge being power. Teachers struggling for control of their classes may use their knowledge as a behavior management device: when they share their ideas, the students are likely to be quiet and more attentive. And fourth, time is a serious consideration in many classrooms. The curriculum must be covered, and teachers' theories and ideas typically bring closure to discussions and move the class on to the next topic. (pp. 107-108)

Constructivism in the Classroom: Assessment

"The aim is better assessment, not more"
(Clarke, 1992, p. 24).

What does the constructivist's view of evaluation look like? The constructivist teacher uses strong context and meaningful tasks; tasks and activities that are real-world and in a relevant context, just as the instruction is; in other words, better assessment where the authentic instruction matches the authentic assessment.

Jonassen (1991a) views meaningful evaluation tasks that are set in a real-world context as "context-driven" evaluation. He believes that it is equally important to evaluate in the same rich context as it is to instruct in a meaningful context. These assessment tasks are known as "authentic" tasks as opposed to the kinds of decontextualized multiple-choice questions, for example, that perhaps are not so authentic. According to Jonassen:

> Authentic tasks are those that have real-world relevance and utility, that integrate those tasks across the curriculum, that provide appropriate levels of complexity, and that allow students to select appropriate levels of difficulty or involvement. We cannot all become masters of every content area. (pp. 29-30)

Appropriateness of Authentic Tasks

Authentic assessment is not a panacea, however. It is as inappropriate to evaluate students who have had a steady diet of worksheets and drill by using rich authentic tasks, as it is to evaluate students who have had rich contextualized instruction and by using decontextualized tasks. Not only is this unfair to the student, but it is invalid assessment as well. It is highly unlikely that the former would occur; most teachers who teach through a workbook test through workbook-type drill sheets and not by using authentic tasks.

These authentic tasks which are promoted in the constructivist approach are not used to sort winners and losers. This is rather refreshing for the students. Varying levels of difficulty are provided so that students can attempt the tasks and demonstrate what they do know. Once that is established, then the student and teacher can take steps to set goals and plan further instruction.

When students are repeatedly given tasks that they cannot do, day in and day out--and this often happens--they soon lose confidence in themselves as Katz and Chard (1989) illustrate:

> A third effect of the dynamic dimension is the long-term cumulative effect of repeated or frequent experiences. An experience may have a benign effect on a child's development if it occurs only once in a while, but a harmful effect if it occurs frequently over a long period of time. Teachers might not worry if a child is occasionally confused by the directions for completing school tasks, but frequent confusion may have strong cumulative effects on the child's self-confidence. (p. 18)

Goal-free Assessment

The constructivist view of evaluation of learning becomes less criterion-referenced and more goal-free because as learners interpret perspectives in different ways, the evaluation makes allowances for this wider variety of responses (Jonassen, 1991b; Scriven, 1983). That way, and happily for the students who experienced abuse of power in testing, "[e]valuation would become less of a reinforcement or control tool and more of a self-analysis tool" (Jonassen, 1991b, p. 12). Self-assessment then plays an important part, and why not? Surely the learner is more aware of how much and how well he or she is learning than anyone else.

Self-assessment

Self-assessment empowers students as learners. Teachers have a chance to give the learning back to the students. Again, it is the pedagogical leave-taking--taking leave, trusting the student--to learn and assess his or her learning to make informed decisions about the next action to take. Young children arrive at school already having had experience in self-assessment--it has been a part of their learning that they have had the first six years of life. How well the student did that the first six years of life! Why do we think that once he or she comes to school that now we have to take self-assessment away and empower ourselves with the issuing and assessment of his or her knowledge and understanding? Perrone (1991) agrees:

> We often hear that students aren't interested in their own growth as learners, that they don't want the responsibility for being involved in assessment practices. Yet when students have sustained opportunities to be active participants, to review for example, their own writing over time, they have become increasingly more articulate about their progress and what they need to work on to improve their performance and enlarge their understandings. (p. 166)

Scoring Guide Criteria

If the tasks are authentic, then the real-world environment that is being modeled in the constructivist environment will recommend the most relevant variables to evaluate the tasks. Johanssen (1991) presents this example:

> [W]e have been developing constructivistic, case-based learning environments in transfusion medicine, to prepare residents and third year medical students in how to assess transfusion risks. The criteria for success in a medical diagnostic environment are clear--a correct diagnosis and prescription of treatment that will save the patient within a time period limited by the severity of the problem and at a cost acceptable to the patient, the hospital, the insurance company, and so on. True enough, real-world may be very objective. But they are real-world, and to the extent that they reflect real-world criteria, they are meaningful. (p. 30)

Reporting the Results

As well as being tested fairly, students should have the right to have the results reported fairly, as well as clearly and honestly. This notion is endorsed by Alberta Education (1990) and British Columbia Ministry of Education (1994). The report should be summative and formative: summative to indicate to the student and parent how well the student is progressing compared to others of his grade or age, and formative to indicate the student's strengths and weaknesses for the purposes of program planning. If letter grades are used, they should clearly describe the outcomes of that grade level. In addition to letter grades, anecdotal reporting should be included as well to further individualize and clarify the description of the student's academic result and growth. Letter grades or their equivalent are best used after Grade 3 because up until that time, students are in very early stages of development and letter grades do not seem appropriate or even useful; anecdotal reporting for young children is more effective and fair. The reporting should as fairly as possible include all areas of development, not just the academic area. The report should clearly describe a plan for the progression of instruction that has been discussed by teacher and student, and or parent. From my experience, a three-way conference with student, parent, and teacher is a positive step to reporting results. That way, the reporting is a shared responsibility and not "done to the student." Three-way reporting does not objectify the student but instead shows respect to the other in a pedagogical relationship and minimizes misunderstanding about the student's growth and results. Davies, Cameron, Politano, and Gregory (1992) state:

"Together is better when the way we report includes parents, students, and teachers as valued contributors. Communication is improved when everyone has the opportunity to take part, ask for clarification, see specific examples, and know that they've been heard" (p. 21).

The students in this investigation wrote about their desire to do relevant tests; tests that were meaningful real-life. Students did not appreciate being required to study hard for understanding and then being given a test of trivia--of meaningless memory work. I believe that if they do not want to be tested on it they probably don't want to be instructed on it in the first place. On the other hand, it really depends on how the instruction is done. Take Paco, for instance, who was not by any means interested in the French Revolution. Paco was angry about the requirement to study the topic for the test. Perhaps if the information were presented differently as Katz and Chard (1989) suggest, Paco may have become interested. Like many teachers I do realize that not every minute of the day can we expect to have students spellbound, but I do think that we can make school a little more engaging and relevant. To do that, it often means taking risks and handing some of the responsibility over to the students. Aoki refers to this as "letting learn" or "pedagogical leave taking". Aoki (1990) writes:

> Often a pedagogical tact in teaching is to say to a student, "I leave it to you," suggesting a letting go of decision-making to the student. Such an understanding reflects teaching understood as delegating or allocating power assumed to reside in the teacher. (p. 39)

"Letting learn" seems to be a matter of power sharing and it is interesting that the student recognizes this and teachers don't--or do they? Students are more likely to learn prescribed material if they have some choice in the context of the learning, for instance, learning to write a friendly letter through the real letter writing activity to a penpal or cousin. Assessing by checking for punctuation, the appropriate greeting, and addressing of the letter are learned through a meaningful activity rather than correcting a contrived error-laden letter in a workbook. Knowledge in the real sense develops this way when there is meaning and purpose underlying the activity. Perkins (1992) gives an example of a situation in which students learned for understanding in context, could remember and apply the knowledge better than students who learned through conventional means. According to Perkins there are various kinds of knowledge that students develop. He labeled them "inert knowledge," "naive knowledge," and "ritual knowledge":

> Conventional instruction--reading textbooks and listening to lectures--tends to produce inert knowledge. For example, cognitive psychologist John Bransford and his colleagues conducted an experiment in which some students read items of information about nutrition, water as a standard of density, solar-powered airplanes, and other matters in the usual textbookish way, with the intent to remember. Other students read the same items of information in the context of thinking about the challenges of a journey through a South American jungle. For instance, the students read about the density of water in the context of how much the water the traveler would have to carry.

> Later, both groups of students were given the task of planning a desert expedition. The students who had studied the information in the conventional way made hardly any use of it. But the students who had studied the same information in the problem-solving context of the jungle journey made rich and extensive use of the information, pondering the kinds of foods that would sustain people the best, worrying about the weight--and so on. (p. 22)

Conclusion

It is clear that good assessment is not possible without good instruction, such as the kind Perkins (1992) recommends. Perrone (1991) agrees:

> I raise these teacher, school, and pedagogical issues . . . to make clear that the larger conception of evaluation cannot go forward without a larger conception of teaching. If teaching is skill sheets, work sheets, textbooks, basal readers and simplified explanations, a larger view of assessment is not likely to take root. Who wants, for example, a portfolio of skill sheets? We have a chance to construct something better. (p. 166)

We do indeed have that chance to construct something better, but it is not easy. I have found that when I have tried to introduce to some teachers various authentic assessment tasks such as performance-based assessment and portfolio assessment, teachers do not know how to apply the information I am giving them. In the first place, how can they implement this kind of assessment when their instruction is through workbooks and worksheets? What needs to change first is the instruction. Only when meaningful instruction is in place only then can they consider or comprehend meaningful assessment.

Real-world, meaningful, engaging instruction deserves the same kind of assessment; assessment that is situated in context and that requires students to make judgments. The scoring criteria should be open-ended so that multiple viewpoints can be accommodated to meet the criteria of acceptable performance levels of the student. In addition, care must be taken to introduce this kind of assessment to students, considering their past experiences of assessment, that often focus on grades and competition. For many students this is a very real paradigm shift.

Linking Good Instruction to Good Assessment

> In a constuctivist setting, assessment of student learning is done naturally within the context of lessons and activities. Teachers analyze student products and exhibitions as benchmarks and garner information for use in developing future activities and informing ongoing practice. (Grennon Brooks & Brooks, 1993, p. 122)

Often, good instruction is not linked to good assessment, nor is assessment seen as a natural or ongoing process, as Grennon Brooks and

Brooks (1993) advocate. Students are shortchanged with decontexualized learning and tests. As one would surmise, then, poor assessment matches poor instruction as this example shows:

> In a next-door twelfth grade class, another teacher dictates a definition of "interpretive literature." All the students are writing it down in their notebook. They are not personally engaged by those terms. There is no time in this class to use the "student discussion method" because the teacher feels the pressure to teach for the final exams. She hopes the students will respond properly to a multiple-choice question about the concept of interpretive literature. Yet, it is not likely that this concept will help them make sense of their experience in reading literature." (Hoffmann, 1964, p. 171)

The example in the literature class indicates that little real learning is taking place. Not much sense is being made of the literature and no doubt after the exam, the learning will vanish. This example is not unique. Katz and Chard (1989) would agree that insignificant understanding is indeed taking place in many schools. Learning for a test is meaningless learning, and yet strangely enough, students are rewarded consistently for this. This seems odd that students are rewarded for not really understanding. So why should they bother trying to understand? It takes too much time and effort anyway. Little wonder students are confused, but most often they do not question the authority of the teacher (Apple, 1979). Teachers often knowingly teach to the poorly constructed tests instead of for understanding because there's no time for in-depth learning. It seems it's a vicious circle. Teachers themselves are rewarded indirectly for having their students score high on these kinds of tests so they give students ample practice on them. There seems to be something inherently wrong when teaching for understanding and learning for understanding are often not the focus nor rewarded.

"We learn every time we make sense of something; we learn in the act of making sense of the world around us. Understanding takes care of learning" (F. Smith, 1986, p. 28).

Performance-based Assessment Outside of the School Context

Although it has not been done so very much in the past, learning for understanding is being valued more and more in the real-world. It seems that schools will have to take the lead from the business world and re-look at the way they carry out instruction and assessment. For example:

> Authentic activities (tasks and problems already relevant or of emerging relevance to students) also relate to a particular body of knowledge, but rather than structuring assessment around specific bits of information, they invite students to exhibit what they have internalized and learned through application. (Grennon Brooks & Brooks, 1993, pp. 96-97)

Business leaders are aware of what good measurement is. In the article, "Measurement Traps" in the Globe and Mail, Clemmer (1994) says that "weighing yourself 10 times a day won't take off pounds." Similarly, educators should realize that testing students 10 times a week won't improve learning. He further reports that "Measurements that don't lead to meaningful action aren't just useless--they're wasteful" (p. B26). Teachers could learn from business leaders such as Clemmer as well. If the measurement or assessment does not anticipate action, then teachers should reconsider doing it.

Interrelation of Assessment and Instructional Tasks

Students must see the link between assessment and to instruction as well. The two should be so well integrated that an instructional activity such as essay writing, with some slight adjustment, can become an assessment activity. The students in both instruction and assessment have choice of topic and a scoring guide. In both cases, time is given for planning, writing drafts, and polishing. When students work with the open-ended scoring guide criteria, and that means criteria that are not stiflingly specific, students will then know the targets and write to them. The criteria ensure that students have the signposts to a good essay, but do not restrict the student's voice. During instruction a teacher in a constructivist classroom coaches students in developing their own criteria for stories and poems they write (Perkins, 1992).

Student Involvement in Peer Assessment

Another way students can become directly involved with the assessment as it relates to instruction, is suggested by Perkins (1992). He suggests that for some quizzes, the teacher has the students grade one another but that the teacher gives strong feedback where necessary about the kinds of answers that make sense. This kind of instruction is giving up the power or ownership that the teacher has. Another example demonstrates this: The teacher involves students in writing story problems in mathematics for one another to heighten the intrinsic interest of the problems. Students automatically write their problems in real contexts, contexts that have meaning for them, for example problems that are embedded in the context of their school instead of context made up by an expert for a workbook. Students as young as Grade 1 can write these problems for peers and their peers can assess their story problems as they do them (Silverman, Winograd, & Strohauer, 1992).

Student-Constructed Tests

"Student-constructed tests offer both an effective assessment tool and a powerful review strategy to assist students in organizing their knowledge of the topic" (Clarke, 1992, p. 27).

Clarke (1992) suggests a meaningful activity for students is to have them construct their own tests occasionally. To do this successfully, students must be aware of the course content, and make interesting and personalized

questions for the class. In addition, they also have to prepare an appropriate scoring guide. This works successfully in university as well, although when I first introduced this idea, students were a little apprehensive. They have difficulty with the idea of knowing the test content before the test takes place because some realize that they lose the competitive edge. Of course what happens is that the students learn the material in a meaningful way, and by the time the test day comes, writing the test is just a formality. Students have appreciated this form as a change and found it was far less stressful, but on the other hand many commented that they actually spent a lot more time on the test than they would have expected. The following are two journal entries that students wrote about the experience, and shared with me:

Education Student (Trish) Journal Tuesday, November 10, 1992

> It was an absolutely wonderful experience building questions for our own exam. When we broke up into our groups we began to discuss what we felt stood out in the course. What had taken up a major part of the course? What struck us as most important? What would make a good exam question? Quite often, jokingly, we discussed what type of questions we could make that would stump the rest of the class. Other times we came up with extremely simple questions that could have made the exam a cinch. It is amazing though, how fair the exam questions turned out to be. I think this was a great exercise for beginning teachers. Too often we're fearful that if we allow students to design their own test, or to take ownership of what they do in any way for that matter, they'll run away with it and make a cakewalk out of anything they design. Therefore, we feel we must design everything so the students will be challenged. We fail to realize that students are often harder on each other and themselves than we are on them. If we'd just step back once or twice, I think we'd be utterly amazed by what we see.

Education Student (Lily) Journal November 17, 1992:

> I just had the most wonderful experience!! My evaluation test, can you believe it? A test! Nola told us in advance that it would be a no-stress test but I didn't really believe it would work. We wrote the test and I think everybody tried to make questions that would test our knowledge of the course. Many of them dealt with the same topics but she left them in anyway. I guess that shows we placed a lot of value in those areas. This is just great! I can't believe it. I could have written this test by only talking about portfolios but I chose questions that covered every type of assessment we studied. I'll bet lots of others did too! I can hardly wait to ask them. I didn't have to study because I knew the material and knew I did. What a feeling! And the really good thing is, I <u>know</u> it, not just have it in short-term memory. If this strategy works in the classroom it'll be the greatest thing since sliced bread! It was so friendly!

Students valued this way of testing and I do believe, as it was for Lily, they knew and understood the material so well that the test was really only a

formality. Students appreciated that I "stepped back" and trusted them to make the well balanced, meaningful and context-rich test that they did.

"Time" for Teachers

"Assessment should anticipate action. The most useful criterion when deciding whether to engage in a particular assessment activity is, 'What action will result from this assessment?' If the answer is 'None,' do not carry out the assessment" (Clarke, 1992, p. 29).

Teachers As Reflective Practitioners

Purposeful Activity

Much assessment and instruction that is carried out daily lacks purpose. Large amounts of time are lost because many teachers thoughtlessly engage students in purposeless activities. If more teachers reflected and thought about purpose as Clarke (1992) proposes, then the time in class would be used more productively. Purposeless instructional and assessment activities occur in any classroom at times--teachers get so caught up in the busy hubbub of teaching that the purpose can easily be lost. As a teacher I often found myself and my students very busily engaged in an activity. Sometimes I stopped and asked myself, why are we doing this? As I gained experience and confidence, I decided that if I could not justify doing an activity for educationally sound reasons, we stopped doing the frivolous activity immediately because enough time had been wasted already. By continuing the meaningless activity, we were going through the motions of schooling: I was busily providing irrelevant experiences and students were busily having them.

Who Owns the Store?

Perkins (1992) notes that a testing culture promotes the notion of a teacher-centered classroom while an assessment culture requires a student-centered classroom. In an assessment centered classroom, the teacher shares power as he or she does knowledge. It really means that the teacher is no longer the "sage on stage" but the "guide on the side." Teachers need to step back as the student, Trish, suggested and trust the students to take some of the responsibility for their own assessment and learning. Perkins believes that:

> It is this act of stepping back that enables teachers to practice and infuse the habit of reflection into their own pedagogical approach. In this light, teachers become researchers in the classroom, posing central questions to better inform their sense of student learning, their approach to teaching strategies, and the development of their own reflective habits. (p. 65)

A Parent Speaks Out

Parents value their children taking responsibility for their own learning and ownership of work too. As a parent I was frequently disappointed with the

carbon copy "art" work that my young children brought home. It is hard to cover up disappointment and I commented on what evidence of creative work that the teacher "allowed" my children to do. I see that I was not alone in my disappointment; other parents were, and still are, disappointed with the lack of ownership of learning that their children have. The following is a letter from a parent lamenting this lack of ownership:

"A Question of Ownership"

My son Nicholas came home from his first grade class today carrying a paper puppet, his first art project. Full of excitement and some degree of pride he handed me his puppet waiting for my reaction. As he had attended a wonderful kindergarten program and had come home with many an inventive project, I'm sure he expected my usual enthusiastic response.

My reaction this time, however, was a bit different. In my hands I held someone else's drawing that my son had carefully colored, cut out, glued together and then handed to his teacher to staple on the strip of paper that they were to use to hold the puppet. All I felt was hurt and disappointment, after all, I was losing a bit of a dream I had for my son's education.

I carefully commented on the interesting color combination he had chosen, on the excellent way he had colored and glued the picture together. I asked him if his teacher knew he could use a stapler, he simply replied that he hadn't told her he could. That was all really I could say and I put the puppet away.

But the puppet didn't go away because I was still left with a bad feeling. Later when my five-year-old daughter came downstairs with her puppets that she had carefully created on her own, using Nicholas' puppet as a stimulus, the message was driven home and I knew why I had been so upset.

I loved my daughter's puppets because we could truly celebrate them; they were hers! She really owned them. She owned the idea she used to create them, the skill in cutting them out, and she even owned the problem-solving she did in trying to figure out just how she was going to attach the stick part to her puppets. Because the materials she needed to do her chosen project are always available she didn't have to ask me for anything and risk my interference.

I sat down with my son then, with a large puppet he had created last year. I asked him who thought of the idea, who designed him and put him up on our wall. He had of course. I then explained to him that, that was why I loved this puppet. He owned it. He also owned the learning that went with it. I then asked him who owned the puppet that he had brought home earlier today. We decided that the artist owned the drawing, the teacher owned the attachment and that Nicholas owned the coloring and gluing--the cutting didn't count because he just followed a line that was already drawn. So we could comment on what Nicholas owned, but we both agreed that his earlier puppet gave us more to celebrate.

It is no surprise that the Mother's Day cards that I have chosen to keep are those that my children had so carefully drawn and made themselves--the ones that they owned and created for me. The cards were a part of them, their personalities, their growing skill and creativity in drawing, designing, coloring and cutting, that they gave me for Mother's Day. But I did not keep the commercially-made cards--they belonged to someone else.

Teachers and Change

The constructivist approach seems to be favored by students and researchers, and yet many teachers who hold on to traditional approaches do not see the need for change because their current approaches seem to work well for their students. For example, Grennon Brooks and Brooks (1993) note that students take comprehensive notes and pass important tests; perform well on worksheets; complete assignments neatly and on time; write well-structured and well-researched individual or group reports; and receive good grades for their work. Students have learned to conform in these classrooms, the teacher being the determiner of what is right and wrong, and no questions asked. What happens to students is that as some students contentedly go along with this, the rest disengage. Many teachers are more than comfortable with this too and prefer to keep it that way because they see the sharing of power as "a threatening break from the unwritten but widely understood hierarchical covenant that binds students and teachers" (Grennon Brooks & Brooks, p. 102).

Coping With Change

The students' stories about their experiences of taking a test contained many uncomplimentary remarks about teachers--prompted most likely by the topic that they wrote about. Students do have a case for not being positive about their teachers or tests because much of the time they have been unfairly and inappropriately assessed. This has occurred because many teachers are not well informed about testing and unknowingly are providing poor tests and conditions under which students must perform. Many teachers are uncomfortable about testing and grading and this is unfortunate because they are missing the real celebration of growth and effort that authentic assessment can provide. Teachers need support at this time, not criticism that is not constructive. I believe that most teachers care for their students and work very hard at being the best teachers they can be, but external factors and pressures make it difficult for many to do the pedagogical job they would like to do. Perkins (1992) concurs:

"[M]ost educational settings neither labor very hard to build teachers' understandings of new instructional perspectives nor allow teachers the flexibility or freedom from the coverage fetish to pursue more enlightened instruction" (p. 52).

In building new educational understandings teachers must be given the freedom and flexibility to make errors, because change is transformative and

does not occur overnight. There are going to be wins and losses during this time of change. Doll (1989) perceives change through a post-modern view:

"A post-modern view looks upon change in an entirely different light. Change is seen in transformative, not incremental terms; and errors are seen as necessary actions in the process of development" (p. 249).

The cartoon in Figure 14 illustrates the fact that education is a shared responsibility. While a good part of success in learning depends upon the effort, ability, and disposition of the student, we forget often that poor marks may indicate some weak instruction and assessment by the teacher.

Figure 14

Cartoon: Education is a Shared Responsibility

"I think you'll find my test results are a pretty good indication of your abilities as a teacher."

HERMAN copyright Jim Unger. Reprinted with permission of UNIVERSAL PRESS SYNDICATE. All rights reserved.

Suggestions for Teachers

From research and my own experience, I have some suggestions for teachers to help them cope with change particularly in their implementation of authentic instruction and assessment.

Less Is More

To help students learn better, teachers must do less. Teachers must trust the students and let them learn by allowing students to take responsibility for their own learning (Doll, 1989).

Uncover the Curriculum

Second, teachers must stop "covering" the curriculum because indeed, that's all they are doing--only covering it instead of uncovering it to reach understanding. Covering a curriculum discourages deep learning (Doll, 1989). Marzanno, Pickering, and McTighe, (1993) agree: "When teachers plan lessons, they often do not consciously consider activities or strategies they might use to help students develop productive habits of mind. They focus instead on content and the need to 'cover the curriculum'" (p. 3). Gardner in Brandt (1993) too, believes that "covering the curriculum" is detrimental to real learning:

> The greatest enemy of understanding is coverage. As long as you are determined to cover everything, you actually ensure that most kids are not going to understand. You've got to take enough time to get kids deeply involved in something so they can think about it in lots of different ways and apply it--not just at school but at home and on the street and so on.
> Now this is the most revolutionary idea in American education--because most people can't abide the notion that we might leave out one decade of American history or one formula in math or one biological system. But that's crazy because we now know that kids don't understand those things anyway. They forget them as soon as the test is over--because it hasn't been built into their brain, engraved in it. (p. 7)

What Gardner is saying is that teachers are so busy covering the curriculum that they don't give themselves time to teach--at least not for understanding. For example once they've "covered insects" even though a child might come excitedly into the classroom with a newly discovered insect a month after the "insect unit" has been covered, its discovery is played down because it has already been "covered." No wonder the child goes away confused. Only a month ago the teacher was excited about insects! Stepien and Gallagher (1993) advocate:

"In the place of covering the curriculum, teachers give learners opportunity to probe deeply into issues searching for connections, to grapple with complexity and to use knowledge to fashion solutions" (p. 26).

Having advocated not to cover the curriculum, I empathize with teachers who must "cover" topics for the Provincial Achievement Tests.

Teachers are in a dilemma--doing something that they feel is inappropriate pedagogy such as rushing students through material before they have had time to internalize concepts. It is little wonder that teachers soon lose their sense of professionalism--or is it being taken away by external testing for the purpose of accountability? Van Manen (1991) is concerned about the relation between pedagogy and politics too:

"Rather than think of themselves as pedagogue-scholars and intellectuals, teachers are encouraged to see themselves mainly as instructional disseminators, knowledge retailers, technicians of externally determined curricula" (p. 213).

Shake off the Albatross

Third, teachers could consider carefully the use of commercial materials, or put them to rest completely. Workbooks and texts tend to "cover" material--it is shallow learning. Shaking off the workbooks like Coleridge's albatross, is difficult. Teachers often feel that they must be used because everyone uses them, or every page must be used whether it has purpose or not. Worksheets and workbooks are tangible evidence that students are appearing to work and learn. Students may look like they're working, but filling in blank after mindless blank does not necessarily indicate that they are learning. Real learning, however, is not so visible. It is inconspicuous until it is applied in the real-world. There is not a lot of authentic instruction or learning in workbooks. The tangible proof or learning through workbooks and tests has run rampant according to Mayer (1961) in Grennon Brooks and Brooks (1993, p. 96):

> [T]he rush of tests and examinations and weekly quizzes, of workbooks and homework, of recitations and catechisms by which children everywhere--but especially in America--are made to prove that they have learned their lessons. If the child cannot give back on demand what he has been taught, it is assumed that he has not learned it. (p. 87)

Rather than testing frequently and superficially, it is better to test less frequently and more authentically to find out what students have just memorized or actually internalized. Grennon Brooks and Brooks (1993) agree:

"[A]uthentic assessment tasks require students to apply prior knowledge to new situations, the teacher is able to distinguish between what students have memorized and what they have internalized" (p. 97).

Other albatrosses might include inflexible time tabling, rules without purpose, and adherence to methods and practices that "have always been done that way." By reflecting on and questioning practice, by searching for educationally sound purposes, only then will the albatrosses that have been weighing teachers down will leave.

Once teachers discard these artificial learning devices, many find that they become more resourceful and creative--and so have their students. Students are now not mindless puppets filling in blanks--they're now students who have to think and make judgments. Some students do not like to have to think to create their own story, and use punctuation instead of using someone

else's story to punctuate. Some teachers say students like worksheets, but we must be careful about that generalization even though it may be true. As Katz and Chard (1989) say, just because students like something it doesn't mean it is good for them. A little junk food is acceptable occasionally, but a steady diet of it does not promote optimum growth and development.

Meaningful Professional Development

"When teachers stop growing, so do their students" (Barth, 1990, p. 50).

Teachers must take time for themselves to reflect and take a chance to do less. They must have time to think how they can allow their students to play a greater part in their own learning and assessment. And they must be supported in order to do that. As Perkins (1992) says:

"Nothing drains energy more than having too many things to do and too little time to do any of them near well" (pp. 4-5).

Teachers are drained because they are too busy, most often doing busywork. Many teachers are the first to admit this, that things are done without real purpose because they've always done it that way, or that they just don't have time think about it. Once teachers do get time to think and talk with other teachers, they will be more likely able to reconsider different and more effective ways of instructing and assessing. Teachers need time to learn how to work with others because they are not going to be able to operate in isolation any longer because there are just too many demands on teachers. Costa (1991) in Perkins (1992) agrees:

"When the conditions in which teachers work signal, promote, and facilitate their intellectual growth, they will gradually align their classrooms and instruction to promote students' intellectual growth as well" (p. 221).

Without doubt teachers need time for themselves. Such professional development is a worthwhile investment because the benefits go directly to the students. In many cases, and increasingly so in light of the recent cutbacks in Alberta, teachers do not and will not have sufficient professional development for any change in thinking to take place. In fact, the professional life of a teacher is not something to be envied. Barth (1990) likens the professional life of a teacher to a 'tennis shoe in a laundry dryer' (p. 1). Fullan (1991) stresses the importance of professional development too. He argues that teachers will never improve learning in the classroom unless they help to improve the conditions that surround the classroom.

It is unfortunate that often the public does not appreciate the importance of giving time for teachers to regroup, reflect on, and rethink their practices. Time for teachers to reflect must come into place before we can see effective change in the classroom; change that includes authentic assessment that is truly linked to authentic instruction. Not only are professional

development days necessary, day to day professional development among the school staff is as, or even more effective; in other words, it is a matter of "collegiality." Perkins (1992) agrees:

> What is key to a more orderly and enlightened profession? Of many factors, Barth underscores collegiality. Collegiality means something different from congeniality . . . . It's not just good manners and telling jokes in the teachers' room. Collegiality means working together in a mutually supportive and thoughtful way at the business of education. (p. 222)

Barth (1990) borrows a four-way characterization of collegiality from Judith Warren Little who says that in a collegial atmosphere teachers not only talk about teaching but they observe each other, teach each other and work on curriculum together. Barth concludes then, that a school that serves as a home for teachers' minds is one that will become one for students' minds as well.

The collegial atmosphere contributes to the empowerment of teachers when they feel comfortable enough to share their stories or narratives, their ups and downs (Connelly & Clandinin, 1990, p. 4). Once an atmosphere of collegiality occurs, a feeling of "connectedness" among teachers follows, and teachers are more likely then to take risks and make errors in a supportive atmosphere.

Even in a collegial atmosphere, to implement this idea of authentic assessment, Perkins (1992) says, teachers must "Think big, start small," and do not work in isolation. Perkins believes that if too much is taken on at once, and in isolation, teachers will become disillusioned and go back to their safe, secure, and orderly ways. In assessment and instruction there are practical ways to work as colleagues. Most important, teachers need to rethink their instruction as they rethink their assessment, or even before they rethink their assessment. Authentic assessment will not occur with inauthentic instruction. Until teachers understand authentic instruction, they will not truly implement it. Their classrooms may look as though authentic instruction is going on, but unless they understand why they are having students do the activities they do, it will be superficial--and so will be the assessment. When engaging in constructivism for the first time, teachers need to articulate the wins and losses. They need to compare notes, share strategies that work, and share assessment ideas and materials. Working collaboratively enriches instruction and assessment, and the teacher's whole professional life.

CHAPTER IX

Conclusion: The End of the "Hodos"--And New Beginnings

I would like to conclude with the rest of my story; where I have come from, and where I think I am going in assessment. The possibilities are many but I feel the students have given me a fair indication of the appropriate direction I should take. This chapter addresses my beliefs in assessment and instruction--those reaffirmed, and those that have been "put to the test." I will share my growth as a learner, how I have changed in my thinking, and finally how I will implement changes in my future instruction and assessment.

My Growth as a Learner--The Eighth Assumption Now Unconcealed

During the latter stages of my research journey I discovered another assumption that was not evident to me when I began the research. I believe this is the time to address it, just as it evolved in the story of my research. My eighth assumption, then, is that **assessment should drive instruction**. If the assessment is a good one, one that involves, for the most part, ill-structured tasks in rich context, then that will force good instruction that is meaningful, relevant, and worthwhile for the student. I took part in preparing good assessment tasks at Alberta Education where we developed performance-based assessment tasks in mathematics. These ill-structured tasks were used to help guide and encourage teachers in the province to teach using such tasks instead of the predictable textbook exercises in mathematics. Because these were prepared for the Provincial Achievement Tests, the teachers would be forced to teach to them, in other words, teach using authentic tasks so that students would be familiar with them on the test. We did the same with the multiple-choice component, where problems were situated in rich real-world context and structured so that students were really perplexed in problem solving instead of just routinely performing step-by-step problems.

My Beliefs: Re-looking At Instruction and Testing

How has my thinking changed through the process of this research? I have discovered that this research has reaffirmed some beliefs and it has caused me to question others. I did not come up with answers, but instead, more questions and possibilities. I will deal with my reaffirmation of beliefs first, and then the beliefs that are now up for further question.

Reaffirmed Beliefs: Kitchen Math and Backyard Science

I firmly believe in what I call my constructivist-based "kitchen math and backyard science" approach to authentic teaching and assessment. It is a real-world, meaningful learning in rich context. For example, students use real objects in context to learn. Cooking in the classroom takes care of a good part of the reading and math program as do the activities and projects done in the outdoors without the aid of artificial props. Real money is used in

measurement, real apples are used in fractions. Students write their own stories to learn spelling and grammar. They construct their own booklets, design their own covers in projects. The students' creations belong to no-one else, in stark contrast to Nicholas, who "owned" very little of his puppet as his mother so astutely pointed out. The students in the study indicated that they learned best through meaningful instruction and assessment, and research supports the students' wishes for authentic instruction and assessment. I notice that Gardner (1991) recommends activities such as these as well because the mathematics and language are situated in rich context and are needed and valued in the real-world (p. 212).

I realized during the study why teachers had such difficulty in understanding the various alternative assessment approaches. No wonder teachers are bewildered by authentic assessment. Those relying on workbooks and packaged instruction (instead of "kitchen math and backyard science") cannot begin to assess authentically because they don't have anything authentic to assess! The plethora of prepared "educational" packages is taking away genuine learning. I noticed that now students' journals have been taken away from them. Phi Delta Kappan has produced "My Stories" which contain outlines for journals and topics for students to write about. Included are "fun" pictures for motivation. The pages are 8 1/2 by 11, and consist of 25 pages for writing. There are suggested activities and notes that "provide[s] guidance on how to use that page of the writing journal." The children do not have choice on the size of pages for their journal; they do not have choice on how many pages they might want in their journal, or color of pages. Nor do they have opportunity to construct and staple the journal. The topics are selected for them. Any thinking that students would have done has been taken away for someone else to do. The students will own very little of their journal. I realize that at times teachers need the "crutch" of packaged materials, but do they consistently need them? If so, when will we stop interfering and let the student learn? As long as we keep stealing learning opportunities from children and their own stamp, we will have superficial learning. The children own nothing. If children are allowed to make their own booklets, their own projects and decorate them with their own drawings instead of just coloring prepared drawings, they will experience more empowerment, responsibility, and ownership. It will be theirs. If teachers are interested in their students' real learning, they will have to move away from the superficial packages that are fed to students and the test-teach-test mode that many are in now, and embrace a more constuctivist approach before any teaching or learning or assessment is authentic.

Beliefs Open to Question

Measurement Driven Instruction

I do not believe that we can begin to change assessment practices until we have sound teaching practice in place. Enforcing authentic assessment by including it on the mandatory Achievement Tests is really putting the cart before the horse, as teachers have already pointed out. In theory it does sound workable, but in practice in most cases, it has mediocre success. Teachers not only have to buy into constructivism, they have to understand it as well.

Merely carrying out "authentic" assessment is not authentic at all unless it is tied to authentic instruction. Measurement Driven Instruction (MDI) rests on the belief that if the test is good, then teach to it. In other words, good assessment implies that good instruction will have to be in place. This brings me to my question of "teaching to the test." I can see how logical this is but my experiences in administering authentic assessment to students who have not had authentic instruction makes me re-look at this practice. A couple of years ago when I worked on performance-based assessment and carried out some field testing for the International Assessment of Educational Progress (IAEP) I had to administer performance-based assessment (authentic assessment) to several classes of junior high students. To this day I wonder about the validity of the results. The authentic assessment consisted of lab-type activities in math and science. The context was rich, as were the activities rich in meaning and purpose. In one class I set up the activities in the science laboratory in the school. I noticed the students taking great interest not in the activities so much, as the room. I soon learned that this was the first time they had ever been in their science lab. Their science lessons were taught out of the science textbook--chapter by dreary chapter, and their only activity was answering the perfunctory questions at the end of each chapter. The students were unfamiliar with hands-on activities, yet were visibly delighted with the change of pace, and were fully engaged in problem-solving for the two-hour period. Nevertheless, this was not like their regular instruction, and the assessment did not link to the instruction in very many ways at all. The poor results that the students achieved were not a comment on students' problem-solving abilities so much as the decontextualized instruction that they had received. Students spent a good part of the time becoming accustomed to using manipulatives and managing them for the first time. A more appropriate (although not more educationally sound) assessment for these students would have been a paper-and pencil test containing short-answer and objective-type questions.

E. Eisner (personal communication, 1990) attests to Measurement Driven Instruction (MDI), as does Wiggins (Brandt, 1992) in his statement of "teaching to the test" as a way to implement change. They argue that better assessment instruments will drive better instruction, but I believe that this is a somewhat naive assumption. While that may occur in some cases--and it certainly is logical--from my experience in working with hundreds of teachers, it just doesn't necessarily work that way, nor is it that easy to do. We talk about students having to understand to make sense of things and yet we don't give the same opportunity to teachers to understand before they buy into a new teaching approach. For several years when I worked at Alberta Education I worked with teachers and advocated teaching to the authentic test. That was my first mistake. Many teachers did not know what authentic instruction was, let alone authentic assessment. Putting the cart before the horse clearly was not making a lot of sense to teachers. Many teachers valiantly tried to put authentic assessment in place; for example, they constructed authentic activities in assessment, and implemented portfolios, but their instruction did not match the assessment. The portfolio of worksheets somehow missed the mark. And, naturally enough, frustration set in. For one thing, workbooks worked fine before, and one teacher cited the adage, "if it ain't broke, don't fix

it." As it was, students worked page by tedious page through the workbook without much protest, most likely because they did not know any better. This observation is supported by Herman et al. (1992) who believe that "it is not that tests ought to drive the curriculum, or that teachers ought to teach to the test. Rather, good assessment is an integral part of good instruction" (p. 5).

A second mistake in implementing authentic assessment is not taking the students' point of view into consideration. Imposing authentic assessment on students overnight was also inappropriate. Students' enthusiasm in handling these new approaches disturbed the harmony and security that they had with their familiar passive learning. Students need to know why these changes are taking place so that the purpose is clear. It was a similar experience for teachers when they attended a one-day workshop on math manipulatives. The teachers diligently constructed manipulative math activities for students and expected the students to handle these appropriately at the first introduction. The purpose for using the manipulatives was not clear to teacher or students; in other words, the activities were in place before the thinking was, and the result was failure. Consequently, the workbooks were hauled out once more. Perkins (1992) cautions:

"We must not expect new technologies, the grouping of students, and the innovations to do the job by themselves. We must accept the responsibility of mediating students' good use of person-plus resources" (p. 148). Gardner (1991) agrees:

> The presence of a curriculum that is worth assessing is a step in the right direction. Unless teachers accept the curriculum, however, and not only believe in it but embody its precepts in their teaching, the best curriculum and ways of assessing are of little value. To the extent that master teachers believe in what they are teaching and now how to assess progress and understanding, they become excellent, indispensable leaders of the educational process. (p. 254) [emphasis added]

Third, I believe that enforcing authentic assessment through external testing is underhanded and questionable, in practice and in moral terms. I, too, assumed that if we enforce authentic assessment on the Achievement Test, teachers would be obliged to change, and be enlightened about the "right" practice. Teachers would be eternally grateful to us for showing them how better to teach. Whether or not they understood what they were doing was not a real consideration. While I believe authentic assessment and instruction is best for students, for some teachers it might not be "right" for them at this time. But then here's my dilemma--accept the inappropriate practice that is now going on in some of the classrooms, or push for MDI? There are countless examples where students are not being instructed well in various subjects. For example, we know how little mathematical understanding by students is occurring in schools at this time. Most instruction is driven by paper-and-pencil activities with few, if any, concrete experiences provided. There needs to be change, but should it be through MDI, such as by the "top down" external tests? Are there better, more humane, and effective ways to do this? One of

the dangers of MDI is that teachers realize what gets approval and so they make their classroom appear that appropriate instruction is occurring. The classrooms may look as if authentic instruction is taking place but unless it is thoughtfully done and understood, it is only an appearance. I have visited several classrooms with centres and math labs attractively set up, but really little was happening in the students' minds--their minds were not engaged in thinking as they mindlessly moved objects about. Children were working passively side by side, in isolation, and not working cooperatively or using language to make thoughtful connections in creating new knowledge.

Gardner (1991) supports my observations about superficial authentic instruction and assessment, and the pressures that teachers experience:

> A school will not work better simply because it styles itself after a children's museum or institutes reciprocal teaching or mandates the keeping of process-folios. Children will not attain understanding just because they watch masters who exemplify understanding in their own practices. (p. 205)

Gardner goes on to make the important point that if reasons underlying such innovations are accepted and teachers and administrators are searching for ways to implement such innovations then there is a possibility that the assessment and instruction will authentically be put in place.

It is possible that eventually understanding of authentic instruction and performance will occur through external testing, but I believe it is the more difficult route to take. In the meantime, teachers have built up a lot of resentment towards authentic assessment because of the top down nature of "teaching to the external test" which is mandated in Alberta. While these are well-constructed tests developed by teachers on the Alberta curriculum, these features provide little comfort for the teacher who has to administer them.

There are merits to our provincial Achievement Testing Program. The tests are well-constructed by teachers and they are valuable in obtaining a snapshot of student achievement. The results do improve programs and teaching practice. However, they leave a sour taste in the mouths of educators because of the top down nature of the program. If we trust teachers like we do students in their constructing of their own tests as Lily and Trish said, the program would be welcomed. Regarding the merits of top down implementation, Fullan (1994) writes:

> Small and large-scale studies of top-down strategies (whether employing voluntary or mandatory methods) have consistently demonstrated that local implementation fails in the vast majority of cases. (p. 186)

I often wondered if I were the only one feeling uncomfortable about the MDI as it was externally administered by Alberta Education? Upon further investigation of this, I read Popham's research in his text Modern Educational Measurement (1981). He believes there is a conflict between teachers and measurement specialists as each operates in separate worlds. He believes that neither teachers nor measurement specialists can afford to be specialists in only one area; each should have knowledge of both to be effective. He found

that, "Teachers would whip up an instructional storm, then testers would swoop in to see how much students had learned" (p. 412); in other words, "Ne'er the twain should meet." Popham adds that instructional specialists were often intimidated by the "measurement crowd." How true! I confidently "swooped in" with my precious boxes of testing equipment and teachers upon sighting me, virtually scattered. Very rarely did a teacher peek in the room to see what was taking place with their students and yet I certainly put out the welcome mat. But I see now that I was viewed as a "specialist" and what I did had little to do with their real-world. Popham thinks that for the well-being of students, this is truly tragic and this situation must be altered. There needs to be collaboration between both camps. We do have some collaboration in the Achievement Testing Program in that teachers and test development specialists do create the tests. However, the number of teachers involved in this process is very small considering the number of teachers in the province. In addition, the teachers involved in these test construction activities are usually not the run-of-the-mill teacher; these are teachers chosen by principals and superintendents who work for Alberta Education because of their excellent teaching expertise and content knowledge. How they view and teach instruction and assessment is not often typical of what is done by the majority of the teachers in the province. Popham believes that the chief impediment to collaboration is ignorance and that when people are ignorant of someone else's operation, they fear it, or at least stay clear of it. I think from my experiences, Popham is right. Once these barriers are broken down, only then will measurement driven instruction be effective.

Multiple-Choice Test Questions

For several years I defended and touted the value of multiple-choice questions to teachers, parents, administrators and students. However, now I have less respect for multiple-choice questions than I did before I started this research. While they seem valid--the right students get them right most of the time, why are they so unpopular? When I think of "the bottom line" that students addressed in their stories, I now understand that poorly-constructed multiple-choice questions are found most unacceptable to them because they are unfair. My own university students still dislike them, even though the students through my course in student evaluation are more informed about them. I have found when I use multiple-choice that while most of the bright students get the questions right, there are some bright students who don't. I always reassured them with, "Oh well, that's why we have a variety of ways to assess--those that don't do well on multiple-choice have a chance on essay questions." But why not give students opportunity to do well on everything? Why does the format have to be the obstacle, or the leveler? What are we testing--the ability to do multiple-choice or the ability to solve problems? Some of my most insightful students were tripped up on multiple-choice questions last semester and I do believe that I constructed the questions reasonably well. That seemed unfair for the more deserving students. What does concern me though is how much these are used at university and from what I have seen, for the most part, they are poorly constructed and improperly analyzed. How can I resolve this dilemma? Perhaps multiple-choice tests are best left to the external tests where the "snapshot" of students' knowledge is captured and

where the results do not count in the students' record. For myself, I will reduce the use of multiple-choice questions in my tests considerably.

How I Will Change My Instruction

I will address what constitutes authentic instruction first in my workshops and university classes and follow naturally with what constitutes good assessment. I will not assume instant understanding of good instruction as I once did. I believe there really is no difference between instructional activities and assessment activities and I will link the two even more than I have in the past.

Practice That I Will Continue

To do that I will continue to use context-rich situated learning activities as I have done in the past. Not only are they more interesting and effective, but students find this a refreshing change from the usual lecture-style instruction. I will extend the idea of the Application Assignment and provide even more choice to students in the ways they would like to be assessed. I will give more responsibility back to the students and trust that they know how they learn and can demonstrate their learning best.

Assessment As a Positive Step

I will continue to view assessment as a positive activity that is integrated into instruction. Zessoules and Gardner (1991) hold that authentic assessment will have to have meaningful and engaging instruction in place first and that it is no longer tacked on the end of a lesson or unit of instruction:

> [A]uthentic assessment involves a complicated re-evaluation of classroom activities and responsibilities, transforming the classroom along many dimensions; changing the kinds of activities students engage in on a daily basis; altering the responsibilities of students and teachers in increasingly sophisticated ways; and transforming the static, mechanical, and disengaging moments when learning stops and testing begins into a continuum of moments that combine assessment, instruction, and learning. By integrating assessment into the day-to-day classroom experience, one changes its role dynamically. No longer a weapon for rooting out and combating students' weaknesses. (p. 63)

Assessment is a celebration and not a means or "weapon for rooting out and combating students' weaknesses" as Zessoules and Gardner (1991) suggest is currently being done. Rather than a punishment or something to be feared as the students in their stories indicated, assessment becomes an additional way for students to learn and set goals for further learning. Ultimately, assessment is a way to discover the strengths, possibilities and potential of the child. It is a way for students to truly move forward and celebrate their being and becoming.

Significant Learning From the Research: Creating A Space for Learning and Assessment

To authentically instruct and assess students, teachers must first create a space for them. I think that that is one of the most significant things I have learned through this research. It was difficult to listen to the students--I kept wanting to speak. I finally let go of the control I had of their voices and I listened to them and reflected. I was apprehensive about doing that. I was worried about the shape that the research would take. I took a risk and let the students share the lead with me, and I learned more than I ever thought possible. Students reaffirmed much of what I already knew about education, but I learned new things too. I remembered reading Gadamer's suggestion to open the conversation and listen for the possibilities. In learning and assessment I have discovered some of those possibilities by listening to the students, just as Ashton-Warner (1956) did. She listened to the students and gave up the teacher power, empowered them to learn in their context--the real-world context that made sense to them and to her. By doing that she could watch them "develop like the flowers that are interested in the rain and the sun; in their own time and way." My last story is an excerpt from her novel, Spinster:

> Today I work on Rangi, a five-year-old Maori. Nothing will make him learn the first words of the imported books. Yet they seem normal enough words. "Come and look." "See the boats." "Little dog." "See my aeroplane." Words that I had taken for granted as having been chosen by adult educationalists for their emotional significance. Indeed, the glamorous visitor from the department claimed that they were the mean and it's all but impossible for a teacher to contest the rightness of anything from the department.
> But Wiki and Rangi and others like them, sit and smile and never recognize them again. All this toil, I think, trying to force them to like something they hate. Why must we? Why don't I teach them something that does interest them? Then they might develop like the flowers that are interested in the rain and the sun; in their own time and way. What does interest them?
> "What's Rangi's background?" I ask the Head.
> "His father is a pugilist who runs a gambling den at the pub."
> "What are you frightened of, Rangi?" I ask as he sits in a knot of others.
> "P'lice."
> "Why?"
> "P'lice they takes me to gaol and cuts me up with a butcher-knife."
> I print these words on separate cards and give them to him. And Rangi, who lives on love and kisses and thrashings and fights and fear of the police and who took four months to learn "come," "look," "and" takes four minutes to learn: butcher-knife; gaol; police; sing; cry ; kiss; Daddy; Mummie; Rangi; haka; fight.
> So I make a reading card for him: out of these words, which he reads at first sight, his first reading, and his face lights up with understanding. And from here he goes on to other reading, even the imported books. His

> mind is unlocked, some great fear is discharged, he understands at last and he can read. (Ashton-Warner, 1956, pp. 176-177)

Ashton-Warner in taking Rangi's circumstances improvised and created a space to allow Rangi's difference show. Immediately, instead of being stifled, he bloomed like the flowers. Musicians improvise also--music is more than a matter of skills and techniques. Aoki (1991) says that for music to be lived, it must call for transformation of instrument and music into that which is lived bodily. It is beyond the instrumental reasoning as it is in curriculum where we have performative words such as goals and objectives, processes and products, achievement and assessment (Apple, 1979). Real teaching and learning is real world. Letting learn instead of insisting on the way to teach and assess, instead a way to teach, learn, and assess students. Curriculum improvisation instead of implementation then leaves space to breathe and grow. Letting go means becoming attuned to the students' voices and genuinely addressing their ideas, concerns, and views on learning. By letting go we come nearer to the truth: "The essence of truth reveals itself in freedom" (Heidegger, 1977, p. 130).

Journal Entry, May 21, 1991:

The text of "The Art of the Fugue" appears structured, static, directed, (riddled with dynamics and the like: crescendos, diminuendos, fortes, and allegrettos, and so on)--and so it should be. These "suggestions" or "guidelines," that are written in the text are for poetic license only--not really considered "right" or "wrong," although some might question that I suppose, and hold that some are "more right" or "more wrong" than others, perhaps. Whether to recognize the suggestions or not depends on the ear of the Other, the performer, and the ear of the Other, the auditor. The eye of the performer sees the same text as Others as performers, but "between" the eye and the ear, the magic of interpretation occurs. This is where the freedom of choice occurs, choice of decisions based on past experience, the mood of the moment, and of course in performance, the mood of the Other, the audi-ence.

And so it is with our instruction and assessment. This is our text of music. It too, is riddled with "suggestions" or "guidelines", some of this here, a little less of this there; in other words, poetic license, or freedom to act. The possibilities are infinite. But what of this license? Is this the license (freedom) to teach or improvise with license? The more experienced the musician, the more appropriate license she probably will take. The more license taken, the more likelihood of a sound improvisation; an improvisation of the text that brings the musician's audi-ence to the point of the highest auditory participation. This participation is as alike as it is different, because for each auditor there is a different sound, a sound as heard, and a sound as interpreted--a sound to form a unique connection. Like the young child reading a book, the text is read, listened to, and connected to a new lived-experience from a unique background of lived-experience. So it is with the reader of a music experience living her own improvisation.

Improvisation is living discovery, surprise, creativity, excitement, joy, and freedom. Instruction and assessment beg for the improvisation that the great works of the masters enjoy. Teachers are licensed to improvise instruction and assessment, so . . . .

Let the concert begin!

And we, as the audience, will assess the concert in real-world context, as it is happening. That is real assessment--authentic assessment.

I am an early childhood education teacher who has worked for the Achievement Testing Program. Some of my colleagues wondered how I resolved what they saw as a conflict of philosophies between the two, but I did not see it that way. Assessment was important to me as a pedagogue. It was the "icing on the cake" during, and particularly at the end of the day with my class of grade ones. At the end of the day we would assess it by sharing what we did and learned that day. For the children it was a celebration and a time to set goals for follow-up learning. We celebrated what we did that day and reflected on how we might improve. It was a self-assessment and peer assessment in one. Oftentimes I was assessed too! The child who said "Boring!" during one of the lessons will always stand out in my mind--particularly because he was right! (He was working at a rather meaningless activity, quite inappropriate for his ability and interest--I should have known better.) We came to terms with our strengths and weaknesses, and our attitude was that no-one is perfect but we can always try the best we can. We didn't put a numerical value on the day, or grade it in any way, although I can hear some students say, "Today was a '10'!"; or "Not for me--today was just a '5.'" Good or bad, we learned something and we went on to a whole new day, with new goals and fresh expectations.

The cartoon in Figure 15 illustrates that particularly strengths need to be recognized and how sad it is that usually only the weaknesses are. It is unfortunate that teachers, for many reasons, some of which are beyond their control, are too busy covering the curriculum to relate to students and celebrate their strengths.

Figure 15

Cartoon: The Importance of Celebrating Success

CALVIN AND HOBBES copyright Watterson. Reprinted with permission of UNIVERSAL PRESS SYNDICATE. All rights reserved.

I recognize, however, that assessment is not one that focuses on ; the students spoke very loudly about it, but I do think that it is mostly a matter of attitude. If we take a positive attitude toward assessment, to evaluate what we value, to learn and grow, then assessment or testing will itself flourish--but in a pedagogical sense. Not just as we have done so narrowly in the past rooting out winners and losers, but in a genuine way. Sometimes for bureaucratic or instrumental reasons we do need to tack a number on growth and achievement. If this is done as fairly as possible however, students least of all disagree with that. Of course the key word here is fairly--students said time and time again, that yes, tests were necessary and they did not quarrel with that. What students opposed most of all were unfair tests. By abiding by

principles of fair testing practice, we will be providing appropriate pedagogic practice to students.

I am now at the end of my "hodos," or journey in my pursuit for knowledge. And what did I learn from it? My search to make sense of the meanings and experiences of students taking tests, the looking back, the looking ahead in the journey, and dwelling in the present, has helped me gain insights to "come up with something" as Pirsig (1974) discovers:

> You look at where you're going and where you are and it never makes sense, but then you look at where you've been and a pattern seems to emerge. And if you project forward from that pattern, then sometimes you can come up with something. (p. 149)

My last question: "Did I come up with something in my journey?" My orientation is pedagogic. If this research into the students' experiences of taking tests has in some small way made it a better place in assessment for children, then I have indeed achieved my purpose.

LAST WORDS

What is the teacher?
A guide, not a guard.
What is Learning?
A journey, not a destination.
What is discovery?
Questioning the answers,
not answering the questions.
What is the process?
Discovering ideas,
not covering content.
What is the goal?
Open Minds, not closed issues.
What is the test:
Being and becoming,
not remembering and reviewing
What is the school?
Whatever We choose to make it.

Alan A. Glatthorn

REFERENCES

Adams, W. A. (1980). The experience of teaching and learning. Seattle, WA: Psychological Press.

Aitken, E. N. (1987). A Comparative Study in the Learning of Basic Mathematical Skills in Grade One Using CAI and Traditional Teaching. Unpublished master's thesis, San Diego State University, CA.

Aiken, L. R. (1991). Detecting, understanding, and controlling for cheating on tests. Research In Higher Education, New York: Human Sciences Press, 32(6), 725-736.

Aksamit, D. L., (1990). Naturalistic inquiry applied to the evaluation of a teacher education program. Teaching and Teacher Education, 6(3), 215-226.

Albas, D. C., & Albas, C. M. (1984). Student life and exams: Stresses and coping strategies. Winnipeg, MB: Kendall/Hunt.

Alberta Education. (1990) Program continuity: Elementary education in action. Curriculum Branch. Edmonton, AB: Author.

Alberta Education. (1991). Vision for the nineties. Edmonton, AB: Author.

Alberta Education. (1992). Grade 9 Highlights. Student Evaluation Branch, Edmonton, AB: Author.

Alberta Education. (1993a). Achievement testing program provincial report: June 1992 administration. Student Evaluation Branch, Edmonton, AB: Author.

Alberta Education. (1993b). 1993-94 General information bulletin: Diploma examinations program. Student Evaluation, Edmonton, AB: Author.

Alberta Teachers' Association. (1993). Trying to teach. Interim Report of the Committee on Public Education and Professional Practice as approved by Provincial Executive Council for discussion at the 1993 Annual Representative Assembly. Edmonton, AB: Author.

Alberta Teachers' Association. (1994). Trying to teach: Necessary conditions. Report of the Committee on Public Education and Professional Practice. Edmonton, AB: Author.

Alapack, R. J. (1986). The outlaw relationship as an intertwining of two identity crises: A phenomenological/psychotherapeutic reflection upon female awakening at late adolescence and male rejuvenation at mid-life. Journal of Phenomenological Psychology, 17, 43-63.

American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (1985). Standards of educational and psychological testing. Washington, DC: American Psychological Association.

Aoki, T. T., Langford, D., Williams, D. M., & Wilson, D. C. (Eds.). (1977b). The British Columbia social studies assessment summary report: A report to the Ministry of Education. Victoria, BC: Ministry of Education.

Aoki, T. T. (1978, April). Toward curriculum inquiry in a new key. Paper presented at the Conference on Phenomenological Description: Potential for Research in Art Education Sponsored by the Division of Graduate Studies in the Fine Arts, Concordia University, QU.

Aoki, T. T. (1990). Inspiriting curriculum and pedagogy: Talks to teachers. University of Alberta, Edmonton, AB: Curriculum Praxis.

Apple, M. (1979). Ideology and curriculum. London: Routledge & Kegan Paul.

Armstrong, D. (1991). A celebration of learning: Assessing, evaluation and communicating student growth. Issues, Events, and Ideas: Early Childhood Council of the Alberta Teachers' Association, (62), 7-8.

Arter, J. A., & Spandel, V. (1991). Using portfolios of student work in instruction and assessment. Northwest Regional Educational Laboratory, pp. 1-21.

Ashton-Warner, S. (1958). Spinster. New York: Simon & Schuster.

Bachor, D. G., & Crealock, C. (1986). Instructional strategies for students with special needs. Scarborough, ON: Prentice-Hall.

Badger, E. (1992). More than testing. Arithmetic Teacher, 39(9), 7-11.

Barritt, L., Beekman, T., Bleeker, H., & Mulderij, K. (1983). The world through children's eyes: Hide and seek and peekaboo. Phenomenology + Pedagogy, 1(2), 140-161.

Barritt, L., Beekman, T., Bleeker, H., & Mulderij, K. (1984). Analyzing phenomenological descriptions. Phenomenology + Pedagogy, 2(1), Edmonton: University of Alberta.

Barth, R. S. (1990). Improving schools from within. San Francisco: Jossey-Bass.

Becker, C. S. (1986). Interviewing in human science research. Methods, 1, 101-124.

Bell, S. (1991). Appropriate assessment in the early childhood classroom. Issues, Events, and Ideas: Early Childhood Council of the Alberta Teachers' Association, (62), 8-9.

Bergum, V. (1989). Woman to mother: A transformation. Massachusetts: Bergin & Garvey.

Berlak, H., Newmann, F. M., Adams, E., Archbald, D. A., Burgess, T., Raven, J., & Romberg, T. A. (1992). Toward a new science of educational testing and assessment. New York: SUNY.

Berman, L. M., Hultgren, F. H., Lee, D., Rivkin, M. S., & Roderick, K. A. in Conversation with Ted Aoki. (1991). Toward curriculum for being: Voices of education. Albany, NY: SUNY Press.

Blishen, E. (Ed.). (1969). The school that I'd like. Harmondsworth, Middlesex, England: Penguin.

Bollnow, O. F. (1960). Lived-space. Philosophy Today, 15(4), 31-39.

Bollnow, O. F. (1989). The pedagogical atmosphere. Phenomenology + Pedagogy, Edmonton: University of Alberta, 7, 5-63.

Borasi, R. (1994). Capitalizing on errors as "Springboards For Inquiry": A teaching experiment. Journal for Research in Mathematics Education, 25(2), 166-208.

Brandt, R. (1989). On misuse of testing: A conversation with George Madaus. Educational Leadership, 46(7), 26-29.

Brandt, R. (1992). On performance assessment: A conversation with Grant Wiggins. Educational Leadership, 49(8), 35.

Brandt, R. (1993). On teaching for understanding: A conversation with Howard Gardner. Educational Leadership, 50(7), 4-7.

Bredekamp, S., & Shepard, L. (1989). How best to protect children from inappropriate school expectations, practices, and policies. Young Children, 44(3), 14-24.

Brimfield, R., Roderick, J., & Yamamoto, K. (1983). Persons as researchers: Observation of the participation. Curriculum Inquiry, 13(4), 5-12.

British Columbia Ministry of Education. (1994, July). News release: New reporting standards for students finalized. (NR2994, p. 30). Victoria, BC: Author.

Broadfoot, P., & Fenner, R. (1985). Pupil profiles: The promise and the peril. The New Era, 66(2), 30-39.

Broadfoot, P. (1986). Profiling and the affective curriculum. Journal of Curriculum Studies, 19(1), 25-34.

Bruinsma, R. (1992, March/April). Teaching, testing and evaluation. The Alberta Teachers' Association Magazine, 72(3), 8-10.

Burgess, R. G. (Ed.). (1984). Field methods in the study of education. Philadelphia: Falmer Press.

Butt, R. L., Raymond, D., & Yamagishi, L. (1988). Autobiographic praxis: Studying the formation of teachers' knowledge. Journal of Curriculum Theorizing, 7(4), 87-164.

Cannell, J. J. (1987). Nationally normed elementary achievement testing in America's public schools: How all fifty states are above the national average. Daniels, W. V.: Friends for Education.

Carl, I. M. (1991). Better mathematics for K8. Streamlined seminar. National Association of Elementary School Principals, 9(4), 2.

"Children's Voices on Provincial Testing." (1993). Issues, Events, and Ideas, Early Childhood Council of the Alberta Teachers' Association, (70), 10.

Clarke, D. J. (1992). Activating assessment alternatives in mathematics. Arithmetic Teacher, 39(6) 24-29.

Clements, D. H., & Battista, M. T. (1990). Constructivist learning and teaching. Arithmetic Teacher, 38(1), 34-35.

Clemmer, J. (1994, April 19). Brain storming: Measurement traps. The Globe and Mail, p. B26.

Connelly, F. M., & Clandinin, D. J. (1990). Stories of experience and narrative inquiry. Educational Researcher, 19(5) 2-14.

Cornett, J. W. (1990). Utilizing action research in graduate curriculum courses. Theory Into Practice, 29(3), 185-195.

Craig, C., (1993). Children's questions about provincial testing. Issues, Events, and Ideas, Early Childhood Council of the Alberta Teachers' Association, (70), 9.

Craig, T. (1983). Perspectives: Self-discovery through writing personal journals. Language Arts, 60(3), 373-379.

Davies, A., Cameron, C., Politano, C., & Gregory, K. (1992). Together is better: Collaborative assessment, evaluation, and reporting. Winnipeg, MB: Peguis.

Davies, A., Paul, B., Schroeder, D., & Scott, D. (1993). The writer's story. Early Childhood Education, 26(2) 1-42.

Denton, D. E. (1979). Concepts and strategies of phenomenological research. Unpublished manuscript, University of Kentucky.

Depressed over grades. (1993, April 1). Lethbridge Herald, 90(110), p. B7.

Doll, W. E. (1989). Foundations for a post-modern curriculum. Journal of Curriculum Studies, 21(3), 243-253.

Duffy, T. M., & Bednar, A. K. (1991). Attempting to come to grips with alternative perspectives. Educational Technology, 31(9), 12-15.

Edwards, J., & Craig, T. (1990). A teacher experiments with drama as a teaching tool: A collaborative research project. The Alberta Journal of Educational Research, 36(4), 337-351.

Ellis, J. (1993). Stories of women who don't write. McGill Journal of Education, 28(3), 455-468.

Eisner, E. W. (1985). The art of educational evaluation. Philadelphia, PA: Falmer Press.

Etobicoke Board of Education. (1987). Making the grade. Scarborough, ON: Prentice-Hall.

Fairhurst, D. (1993). Achievement tests and dissonance. Issues, Events, and Ideas, Early Childhood Council of the Alberta Teachers' Association, (70), 8.

Feuer, M. J., Fulton, K, & Morison, P. (1993). Better tests and testing practices: Options for policy makers. Phi Delta Kappan, 74(7),. 530-533.

Fiske, E. B. (1988, February, 17). Standardized test scores: Voodoo statistics? New York Times, pp. 7, 9.

Fiske, E. B. (1988, April). America's test mania, Alexandria, VA: ASCD.

Flexner, S. B., & Hauck, L. C. (Eds.). (1987). The Random House dictionary of the English language (2nd ed.). Toronto: Random House.

Floyd, P. (1979). Pink Floyd the wall. Don Mills, ON: Pink Floyd Music Publisher (BMI) CBS Columbia Records Canada. Columbia No. AL 36184

Foucault, M. (1979). Discipline and punish. (A. Sheridan, Trans.), New York: Vintage Books.

Fullan, M. G. (1991). The new meaning of educational change. New York: Teachers College Press.

Fullan, M. G. (1994). Coordinating top-down and bottom-up strategies for educational reform. The Governance of Curriculum: The 1994 ASCD Yearbook, Alexandria, VA: ASCD.

Fulwiler, T. (1982). The personal connection: Journal writing across the curriculum. A. Young & T. Fulwiler (Eds.), Reality Across the Curriculum, Urbana, IL: National Council of Teachers of English.

Fulwiler, T. (Ed.). (1987). The journal book. Portsmouth, NH: Boynton/Cook.

Gadamer, H. E. (1989). Truth and method. (2nd rev. ed.). New York: Crossroad.

Gardner, H. (1991). The unschooled mind: How children think and how schools should teach. New York: Basic Books.

Gitlan, A. D. (1990). Educative research, voice, and school change. Harvard Educational Review, 60(4), 445-466.

Gordon, T. (1974). Teacher effectiveness training. New York: Peter H. Wyden.

Grennon Brooks, J., & Brooks, M. (1993). In search of understanding: The case for constructivist classrooms. Alexandria, VA: ASCD.

Guba, E. G. (1981). Criteria for assessing trustworthiness of naturalistic inquiries. ERIC/ECTJ Annual Review Paper, Educational Research Information Center, 29(2), 75-91, Syracuse, NY: Eric Clearing House on Information Resources.

Hargreaves, A. (1989). Assessment and surveillance. Curriculum and Assessment Reform, Toronto: OISE Press.

Hawking, S. W. (1988). A brief history of time. NY: Bantam Books.

Hebert, E. A. (1992). Portfolios invite reflection--from students and staff. Educational Leadership, 49(8), 58-61.

Heidegger, M. (1977). Basic writings. San Francisco: Harper.

Hoffmann, B. (1964). The tyranny of testing. New York: Collier Books.

Husserl, E. (1991). Cartesian meditations. London: Kluwer Academic.

Inmac. (1993, Mid-winter). MacSelect. pp. 1-66.

Janesick, V. J. (1981). Using a journal to develop reflection and evaluation options in the classroom. Paper presented for the conference on "Reading in the Classroom: New Ways of Looking," Albany, NY.

Jonassen, D. H. (1991a). Evaluating constructivistic learning. Educational Technology, 31(9), 28-33.

Jonassen, D. H. (1991b). Objectivism versus constructivism: Do we need a new philosophical paradigm? Educational Technology and Development, 39(3), 5-14.

Kaiser, R. B. (1981, March). The way of the journal. Psychology Today, pp. 64-76.

Kamii, C., & Lewis, B. A. (1990). Constructivism and first-grade arithmetic. Arithmetic Teacher, 38(1), 34-35.

Kansanen, P. (1991). Pedagogical thinking: The basic problem of teacher education. European Journal of Education, 26(3), 251-260.

Katz, L. G. & Chard, S. C. (1989). Engaging children's minds. Norwood, NJ: Ablex.

Kermode, F. (1979). The genesis of secrecy on the interpretation of narrative. London: Harvard University Press.

King, M., & Ranallo, J. (Eds.). (1993). Teaching and assessment strategies for the transition age. Vancouver: EduServ.

Kite, J. (1991), January). Dear diary. TWA Ambassador, pp. 60-63.

Kvale, S. (1983). The qualitative research interview: A phenomenological and a hermeneutical mode of understanding. Journal of Phenomenological Psychology, 14(2), 171-196.

Langeveld, M. J. (1983). The secret place in the life of the child. Phenomenology + Pedagogy, 1(2), 181-191.

Langley, R. (1983). Keeping an intensive journal: A guide to tapping your hidden inner potential. People Who Motivate Others, 2(3), 1-4.

Le Box, A. (1991). Standardized testing for standardized grade ones? T. T. Aoki (Ed.), (Voices of Teaching, Monograph #2), pp. 26-31, Vancouver, BC: British Columbia Teachers' Federation Program for Quality Teaching.

Lincoln, Y. S. (1988). The role of ideology in naturalistic research. Paper prepared for Presentation at the Invited Symposium, "Ideology in Qualitative Research Methodologies," Division D and SIG/Qualitative Research, American Educational Research Association, New Orleans, LA, April 5-9, 1988.

Linden, J. D., & Linden, K. W. (1968). Tests on trial. Boston: Houghton Mifflin.

Livingstone, C., Castle, S., & Nations, J. (1989). Testing and curriculum reform: One school's experience. Educational Leadership, 46(7), 23-25.

Maeroff, G. I. (1991). Assessing alternative assessment. Phi Delta Kappan, 73(4), 273-281.

Majesky, D. (1993). Grading should go. Educational Leadership, 50(7), 88, 90.

Marzano, R. J., Pickering, D., & McTighe, J. (1993). Assessing student outcomes: Performance assessment using the dimensions of learning model. Alexandria, VA: ASCD.

McGuire, W. L. Approaching "D-Day": Experiencing pedagogical suffocation. In T. T. Aoki (Ed.), Voices of Teaching, Monograph #2 (pp. 32-34). Vancouver, BC: British Columbia Teachers' Federation Program for Quality Teaching.

McLaughlin, M. W. (1991). Test-based accountability as a reform strategy. Phi Delta Kappan, 73(3), 248-251.

Meisels, S. J. (1989). High-stakes testing in kindergarten. Educational Leadership, 46(7), 16-22.

Merleau-Ponty, M. (1962). Phenomenology of perception. New York: The Humanities Press.

Meyer, C. A. (1992). What's the difference between authentic and performance assessment? Educational Leadership, 49(8), 39-40.

Morris, W., (Ed.). (1980). Houghton Mifflin Canadian dictionary of the English language. Senior Edition. Markham, ON: Author.

Mouly, G. J. (1978). Educational research. Boston, MA: Allyn & Bacon.

Musca, T. (Producer), & Menendez, R. (Director). (1988). Stand and deliver [Film]. Los Angeles, CA: Warner Bros.

NAEYC Position Statement on Standardized Testing of Young Children 3 Through 8 Years of Age. (1988). Young Children, 43(3), 42-47.

National Council of Teachers of Mathematics. (1989). Curriculum and evaluation standards for school mathematics. Reston, VA: Author.

Noddings, N. (1991). Caring and continuity in education. Scandinavian Journal of Educational Research, 35(1), 3-12.

O' Neil, J. (1992). Putting performance assessment to the test. Educational Leadership, 49(8), 14-19.

Osborne, J. W. (1990). Some basic existential-phenomenological research methodology for counsellors. Canadian Journal of Counselling, 24(2), 79-91.

Oxford English Dictionary. (1933). London: Oxford University Press. Author.

Paris, S. G., Lawton, T. A., Turner, J. C., & Roth, J. L. (1991). A developmental perspective on standardized achievement testing. Educational Researcher, 20(5), 12-20.

Perkins, D. (1992). Smart schools. New York: The Free Press.

Perrone, V. (Ed.). (1991). Expanding student assessment. Alexandria, VA: Association for Supervision and Curriculum Development.

Perrone, V. (1991). On standardized testing. Childhood Education, 67(3), 132-142.

"Phase out standardized tests, AFT says." (1990, July 12). Education USA Newsline. Online Source, pp. 10-11.

Pike, G. (1991). Reflections of a failing grade. In M. van Manen (Ed.), Texts of pedagogy, University of Alberta: Human Science in Education Project.

Pinar, W. F. & Reynolds, W. M. (Eds.). (1992). Understanding curriculum as phenomenological and deconstructed text. New York: Teachers College Press.

Pirsig, R. M. (1974). Zen and the art of motorcycle maintenance. New York: Bantam.

Polkinghorne, D. (1983). Methodology for the human sciences. Albany, N.Y: State University of New York Press.

Popham, W. J. (1981). Modern educational measurement. Englewood Cliffs, NJ: Prentice-Hall.

Progoff, I. (1975). At a journal workshop. New York: Dialogue House Library.

Rabinow, P. (Ed.). (1984). The Foucault reader. New York: Pantheon Books.

Reigeluth, C. M. (1991). Reflections on the implications of constructivism for educational technology. Educational Technology, 31(9), 34-37.

Rogers, W. T. (1991). Educational assessment in Canada: Evolution or extinction? The Alberta Journal of Educational Research, 37(2), 179-192.

Sartre, J. P. (1957). Being and nothingness. London: Methuen.

Sharma, J. K. (1985). Time and T. S. Eliot. New York: Apt Books.

Shepard, L. A. (1989). Why we need better assessments. Educational Leadership, 46(7), 4-9.

Shepard, L. A. (1991). Will national tests improve student learning? Phi Delta Kappan, 73(3), 232-238.

Sherman, A. (1990). Stop the Grade 3 Provincial tests! Issues, Events, and Ideas, Early Childhood Council of the Alberta Teachers' Association, (57), 1-2.

Sherman, A. (1991). Message from the president. Issues, Events, and Ideas, Early Childhood Council of the Alberta Teachers' Association, (61), 2-3.

Silverman, F. L., Winograd, K., & Strohauer, D. (1992). Student-generated story problems. Arithmetic Teacher, 39(8), 6-12.

Smith, D. G. (1988). Children and the gods of war. Phenomenology + Pedagogy, 6(1), 25-29.

Smith, D. G. (1991). Hermeneutic Inquiry: The hermeneutic imagination and the pedagogic text. In Forms of Curriculum Inquiry, Edmund C. Short (Ed.), (1991), pp 187-209.

Smith, F. (1986). Insult to intelligence. New York: Arbor House.

Smith, M. L. (1991). Put to the test: The effects of external testing on teachers. Educational Researcher, 20(5), 8-11.

Smith, M. S., Fuhrman, S. H., & O'Day, J. (1994). National curriculum standards: Are they desirable and feasible? The Governance of Curriculum, Alexandria, VA: ASCD, 12-29.

Spiegelberg, H. (1975). Doing phenomenology. The Hague, Netherlands: Martinus Nijhoff.

Stepien, W., & Gallagher, S. (1993). Problem-based learning: As authentic as it gets. Educational Leadership, 50(7), 25-28.

Tan, A. (1989). The joy luck club. Toronto: Random House.

Valle, R. S., & King, M. (Eds.). (1978). Existential-Phenomenological alternatives for psychology. New York: Oxford University Press.

van den Berg, J. H. (1970). Time. Things: Four Metabletic Reflections, Pittsburgh, PA: Duquesne University Press.

van Manen, M. (1984). Practicing phenomenological writing. Phenomenology + Pedagogy, 2(1), 36-69.

van Manen, M. (1986). The tone of teaching. ON: Scholastic-TAB.

van Manen, M. (1990). Researching lived experience: Human science for an action sensitive pedagogy. ON: The Althouse Press.

van Manen, M. (1991). The tact of teaching: The meaning of pedagogical thoughtfulness. Albany, NY: The Althouse Press.

van Manen, M. (1992, March). On pedagogy as virtue and the question of the education of teacher educators. Text of a Lecture/Discussion on the occasion of the Faculty of Education 50th anniversary Lecture Series, University of Alberta, Edmonton, AB.

van Manen, M. (1993). Pedagogical politics? Political pedagogy? Keynote invited address at the International Human Science Research Conference, University of Groningen, August 1993, pp. 1-25.

Vygotsky, L. S. (1978). Mind in society. London: Harvard University Press.

Warmington, E. H., & Rouse, P. G. (1956). Great dialogues of Plato. Toronto: The New English Library.

Wertz, F. J. (1984). Procedures in phenomenological research and the question of validity. In C. M. Aanstoos (Ed.). Exploring the lived world, West Georgia College Studies in the Social Sciences, 23, 29-48.

Wiggins, G. P. (1993a). Assessing student performance: Exploring the purpose and limits of testing. San Francisco: Jossey-Bass.

Wiggins, G. P. (1993b). Assessment: Authenticity, context, and validity. Phi Delta Kappan, 75(3), 200-214.

Willis, S. (1990, September). Transforming the test. ASCD Update, Alexandria, VA: ASCD, 32(7), 3-6.

Willis, S. (1993). Are letter grades obsolete? ASCD Update, Alexandria VA: ASCD, 35(7), 1, 4 , & 8.

Witte, D. L., & Blakey, J. M. (1991). The child's view of evaluation: Voice as pattern through time. The Journal of Learning About Learning, 1(1), 72-79.

Yinger, R. (1985). Journal writing as a learning tool. Volta Review, 8(1), 21-33.

Zachariah, M. & O'Neill, L. (1986). The re-introduction of public examinations in Alberta: School context, reasons, implications. The Canadian Public Education System, Calgary, AB: Detselig Enterprises.

Zessoules, R., & Gardner, H. (1991). Authentic assessment: Beyond the buzzword and into the classroom. In V. Perrone, (Ed.), Expanding Student Assessment, VA: ASCD.

APPENDIX A

Notes

"Authentic Assessment"

Some teachers take exception to the term "authentic assessment." They have asked, "If this is 'authentic assessment, is all other 'inauthentic' then?" To that I would say yes and no. Certainly a lot of assessment that is occurring is authentic, but so has a lot been inauthentic--the kinds of mindless activity that has been passed off as a test is deplorable. The students have described it well. The trivia, the meaningless questions, and the irrelevant. I believe most of us are familiar with this--most of us, like the students, have experienced these kinds of tests that don't authentically test knowledge and understanding at all. These tests are written by burnt-out teachers, by teachers out of their league in the subject matter, by teachers who are overloaded with other work, by teachers who have retired before their time and just putting in time, by teachers who are 'winging it," by teachers who are not dedicated or committed, and by teachers who just don't know any better--they were brought up on a steady diet of inauthentic tests themselves. most likely, and so the cycle continues.

Test, Assessment, and Evaluation

What are the differences among test, assessment, and evaluation? In everyday conversation we consistently find these three terms used interchangeably. For the purpose of this investigation, they will be used the following way.: The term "test" will be referred to as the measuring tool or instrument, much like a thermometer or scale; "assessment" will be understood as the process of assessing students' knowledge; and finally, the judgment made from the collected assessments will be the "evaluation." Therefore, we could use Badger's (1992) definition: "[W]e use tests in the process of assessing students' knowledge to make judgments, or evaluations" (p. 7). Chittenden (Perrone, 1991) agrees that assessment is a process and is distinguished from testing:

> Assessment, as opposed to simple one-dimensional measurement, is frequently described as multitrait-multimethod; that is, it focuses upon a number of variables judged to be important, and utilizes a number of techniques to assay them. . . . Its techniques may also be multisource. . . and/or multijudge (p. 27). (p. 24)

Chittenden, on the other hand, refers to tests as: ". . . the full range of devices developed commercially or by teachers, for checking up on student learning. In this he includes informal reading inventories, end-of-unit tasks, teachers' quizzes, etc." (p. 25).

Assessment Is further illustrated by Chittenden cited in Perrone (1991):

> In its derivation, the word assess means "to sit beside," to "assist the judge." It refers to a process of collecting and organizing information or

> data in ways that make it possible for people--teachers, parents, students--to "judge'" or evaluate. (p. 25)

It therefore seems appropriate . . . "to limit the term assessment to the process of gathering the data and fashioning them into an interpretable form; judgments can then be made. . . . Assessment, then, as we define it, precedes the final decision-making stage in evaluation" (Anderson et al., 1975, p. 27) (Perrone 1991, p. 26).

In summary, we can view "test" as simply the measuring instrument such as a quiz that is given to students; "assessment" as the process of collecting and sorting of the data resulting from the use of the measuring instruments; and finally, the "evaluation" as the last step, or the judgment of the outcome of the analysis and interpretation of the data gathered in the assessment.

APPENDIX B

Sample of Data Recording and Organizing of Students and Topics.
(Student in italics are elementary school students)

UNPREPARED FOR TEST

didn't/forgot to study	Oscar; Elmo; Lyn; Sandy
forgot about test	Jean; Josephine
forgot to take home books	Moe
thought s/he knew content already	Jean

REASONS TO STUDY

study to ace the test/honor roll	Nancy; Laura
avoid powerlessness	Saphire
study to be exempted from finals--need 85%	Marie
study so parents won't get mad at them	Sandy
rewards from parents: smiles; material things, money	Elmo; *Michael; Blaine: Karen; Jerry;* Jessie
expectations of achievement and results not correlating	Kathleen; Lee la; Ann; *Joe;* Jessie; Brad
expectations of test content and test not correlating	Hercules Wes; Suzy Q
didn't prepare but did OK/well prepared but did poorly	Scott; Doug; Dana; Josephine; Bill
blanked out	Linda; Tonto; Jean; Michelle; Martha; Ann; Murphy: *Nicole;* Lyn; Sara; Harry; Rob; Shianne; Rookie; Paul; Veto; Columbo
worried about parents' reaction	Linda; TJ; Shainne; James; Tonto; Terri; Jerry; Ellen; Matt
putting on a front	Tonto; Pat

EMOTIONAL EFFECTS

tension	Ben
angry	Allen
scared	Joe; James
nervous	Jayne; Elizabeth; Valerie; Jenny Lee; Moe; *Nicole: Ellen; Karen;* Catalina; Rookie; Ray; Dran; Paul; Brad; Ice; Veto; Bobby; Matt; Columbo
feel stupid	Saphire
memorization exercise	Kathleen; James; Darlene; Michael; Murphy; Bobby; Sara; Catalina; Ben

PHYSICAL EFFECTS

headache	Jayne; Lisa
feel sick to stomach	Lee; Jayne; Petrovitch; Shainne; Kennedy
weak legs	Jayne; Josephine; James;Robin
sweaty palms	Kathleen; Lee la; Jean; Elizabeth; Michelle; Michaila; *Matt; Wendy; Rob;* Kennedy; Bobby; Ice; Sterine; Paul; Bryce; Robin; Mike; Matt
pounding heart	Kathleen; Michele
hot	Jayne; *Nicol;* Jessie; Rebecca Jane; Major; Ice
cold	*Nicol;* Jessie; Ray; Matt; cold
butterflies	Mark; Jean; TJ; Valerie; Martha; Jim; *Haley; Marie; Karen; Keith; Karen Kay; Matt; Lloyd; Maria; Charlene;' Malissa*
teeth grinding	Lee la
bitten nails	Lee La
dizzy	Saphire
aware of surrounding people	Saphire
frustrated and hot	Brad; Sparky
sick and panicky	Saphire; Robin; Brad; Moses
shaking for lack of control	Saphire
pounding head	Martha; *Nicole; Joe;* Matt
sick--test looks big	Clay; Dibs; Catalina; Kennedy; Matt
sick--tempted to cheat/worried that teacher thinks s/he's cheating	Clay; Sandy; Roberto

TEMPORAL

clock/time is power	Saphire; Lee
time goes fast	Ben

CONCERNS

worried about mark	Leann; Matt
fear of failure	Leann; Andrew; Kennedy
good luck charms/prayers	Valerie; Sandy
exams aren't fair	Saphire

SPATIAL

cold and dark	Verna
hot space	Richard
people staring	Rob
irregular space	Ray
stuffy room	
noise in test space	Hercules; Martha; Michaila; Saphire; Serria; Dawn; Richard
unfamiliar space and relieved test is over	Scott; Kathleen; Lee la; Lee; Jayne

APPENDIX C

Samples of Letters

The University of Lethbridge

4401 University Drive
Lethbridge, Alberta, Canada
T1K 3M4
403-329-2251
FAX: (403) 329-2252

FACULTY OF EDUCATION

1993 11 03

Mr. J. McLellan
Superintendent, County of Warner
210 3rd Ave.
Warner, AB
T0K 2L0

Dear Mr. McLellan:

I am embarking on research for my dissertation entitled The Students' Perspective on the Meaning of Taking a Test. At this point in my research I need to interview students as part of my data gathering. May I have permission to approach principals to ask them if they would be interested in participating in this research project? Informally I have spoken to Kim Tsuji and she has indicated that she is interested in having her students participate.

In return for the school's participation I would be very willing to do a half-hour or one-hour workshop on student evaluation for a professional development day or staff meeting.

I am enclosing my application for the Ethics Review which was accepted recently by the review committee at the University of Alberta.

I am currently teaching Evaluation of Student Learning at the University of Lethbridge, so you may contact me there at 329 2429; or at my home at 380 3250 if you are interested in my project.

Yours sincerely,

Nola Aitken

Nola Aitken

Enclosure
cc: Kim Tsuji Principal Raymond School

The
University of
Lethbridge

4401 University Drive
Lethbridge, Alberta, Canada
T1K 3M4
403-329-2251
FAX: (403) 329-2252

FACULTY OF EDUCATION

February 15, 1994

Dear Parents,

I am currently researching the nature of testing from the points of view of students. To do this research I need to collect my data by tape-recording interviews of elementary-school children about their experiences of taking a test. If you are willing to allow your child participate in this research, and if your child is also willing, please indicate this by signing the Permission Slip below.

If your child decides not to participate during the research activity, he or she is free to withdraw at any time. There is a possibility also that I may have to have a follow-up conversation with your child at a later date. Again, this is an optional activity for your child.

Yours sincerely,

Nola Aitken

Nola Aitken
Assistant Professor, University of Lethbridge

Permission Slip

My child MAY participate in the study as outlined above.

Parent's Signature----------

My child MAY NOT participate in the study as outline above.

Parent's Signature----------

The University of Lethbridge

4401 University Drive
Lethbridge, Alberta, Canada
T1K 3M4
403-329-2251
FAX: (403) 329-2252

FACULTY OF EDUCATION

1994 02 22

Mr. Cal O'Brien
Assistant Principal
Catholic Central High School
405 - 18 St. S.
Lethbridge, Alberta
T1H 3E5

Dear Cal:

Thank you very much for providing me class time with your grade 10 and 11 students so that I could gather data on their experiences of taking a test. The students cooperated extremely well; they took the exercise seriously and in so doing they wrote very thoughtfully about their experiences. I am very delighted with this rich data that will be so very important to my dissertation.

Yours sincerely,

Nola

Nola Aitken

cc: Ed Rocheleau, Principal